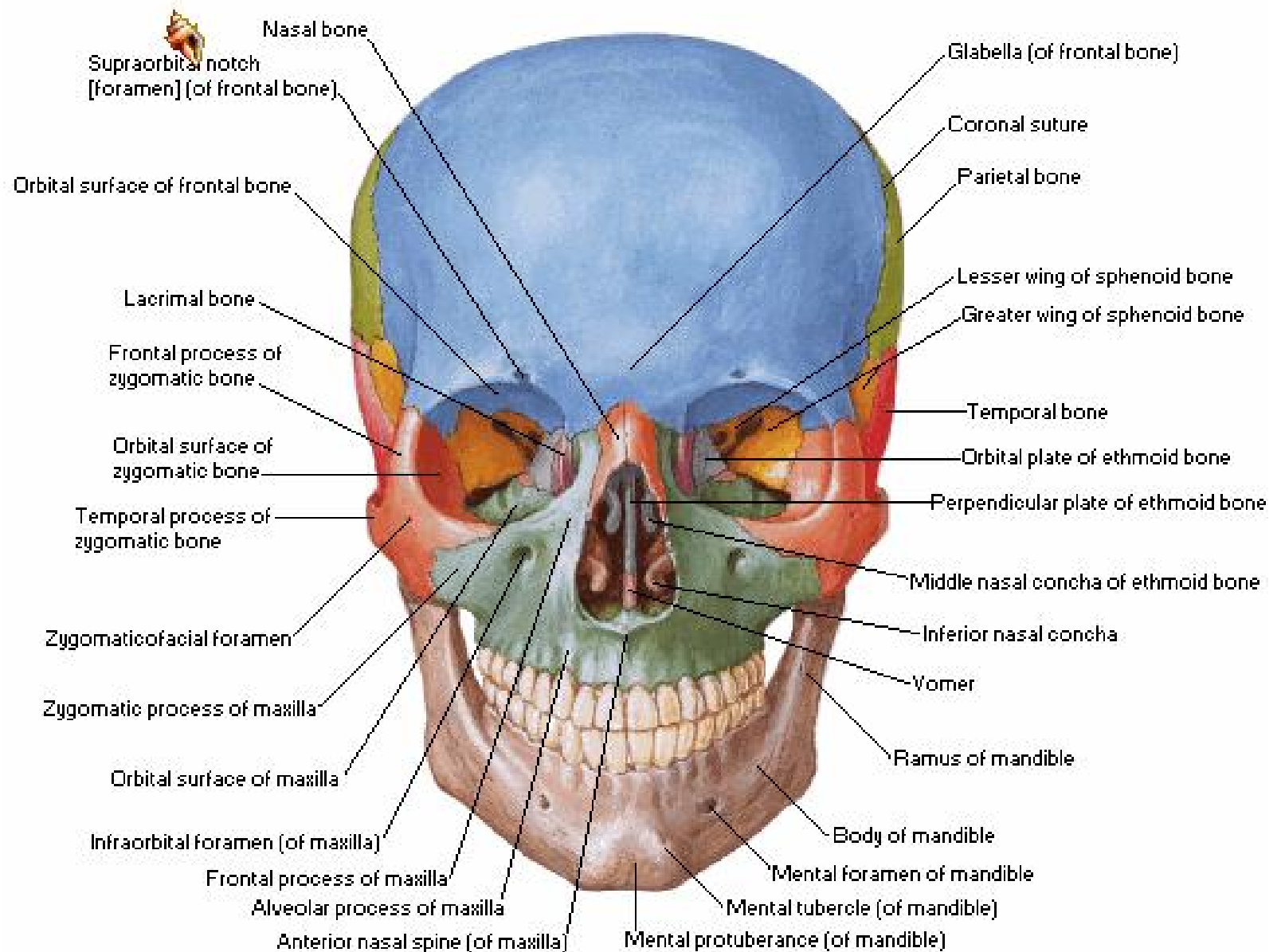


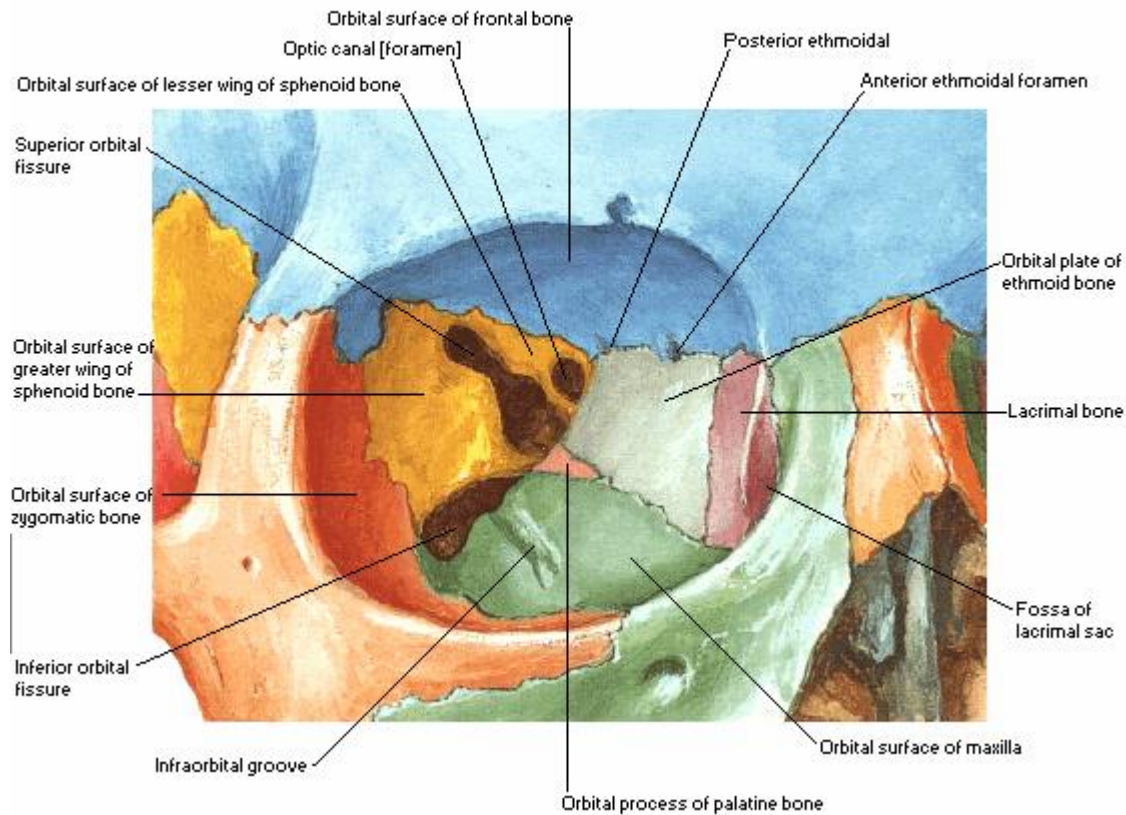
Skull

Anterior View



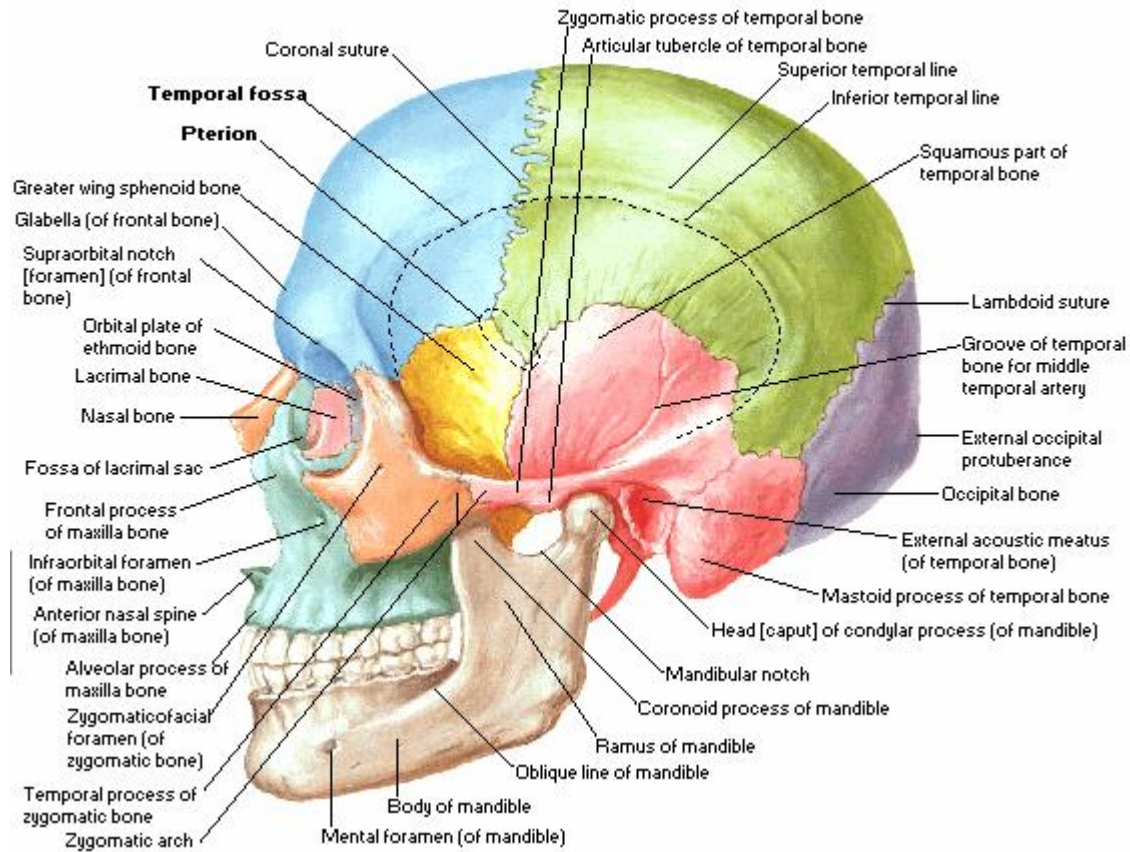
Right Orbit

Frontal and Slightly Lateral View



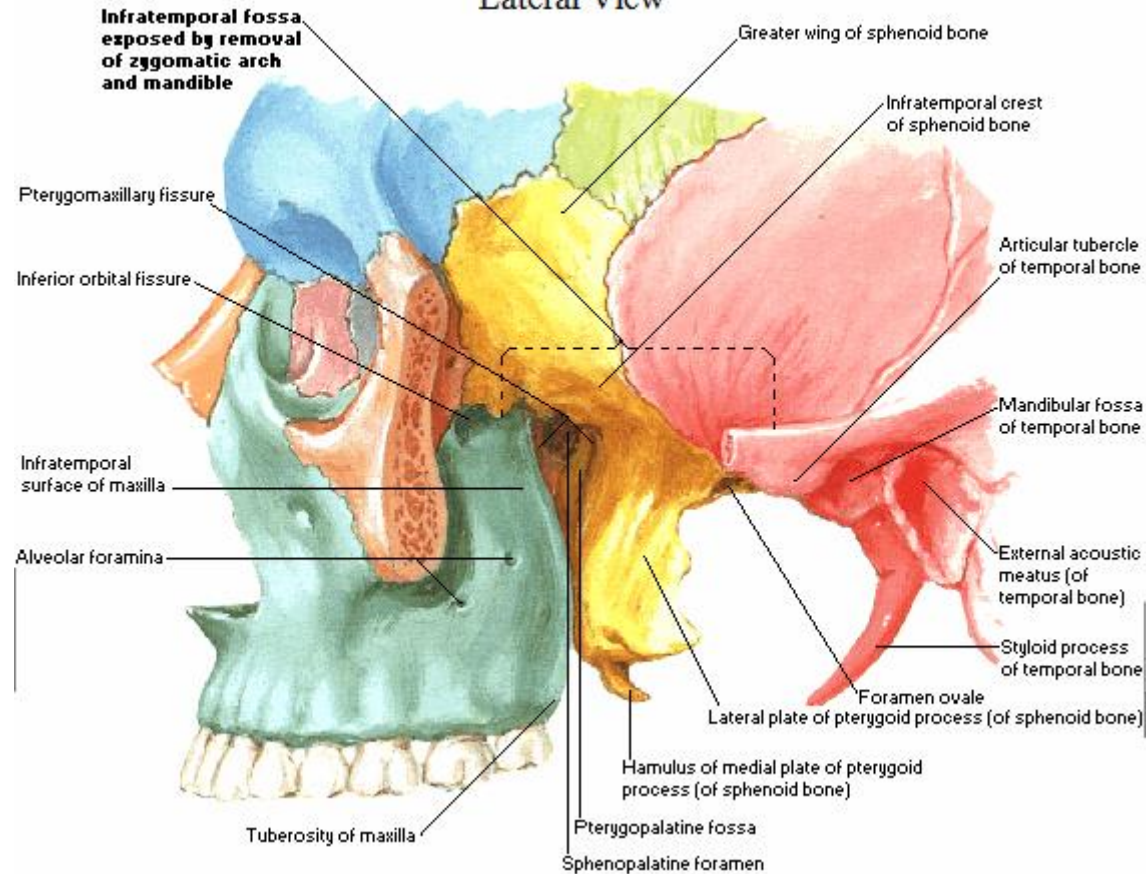
Skull

Lateral View



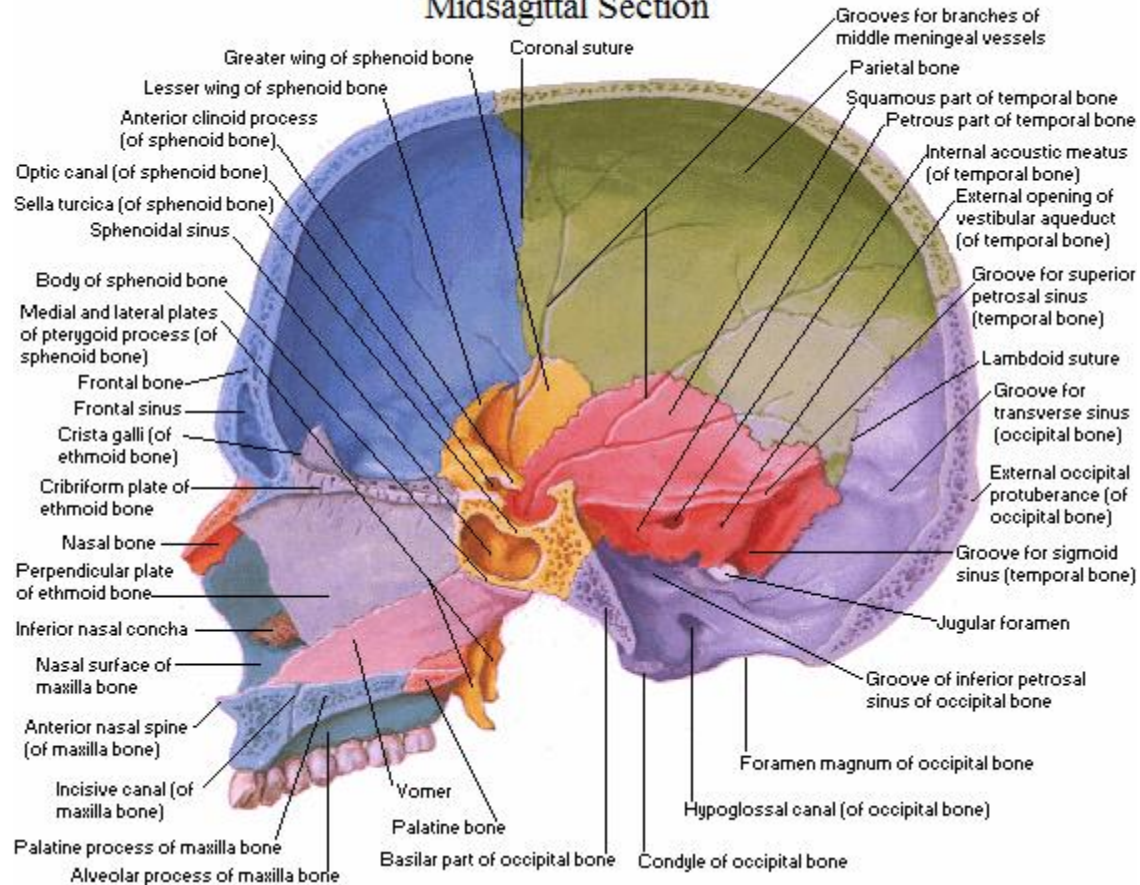
Skull - Infratemporal Fossa Exposed

Lateral View



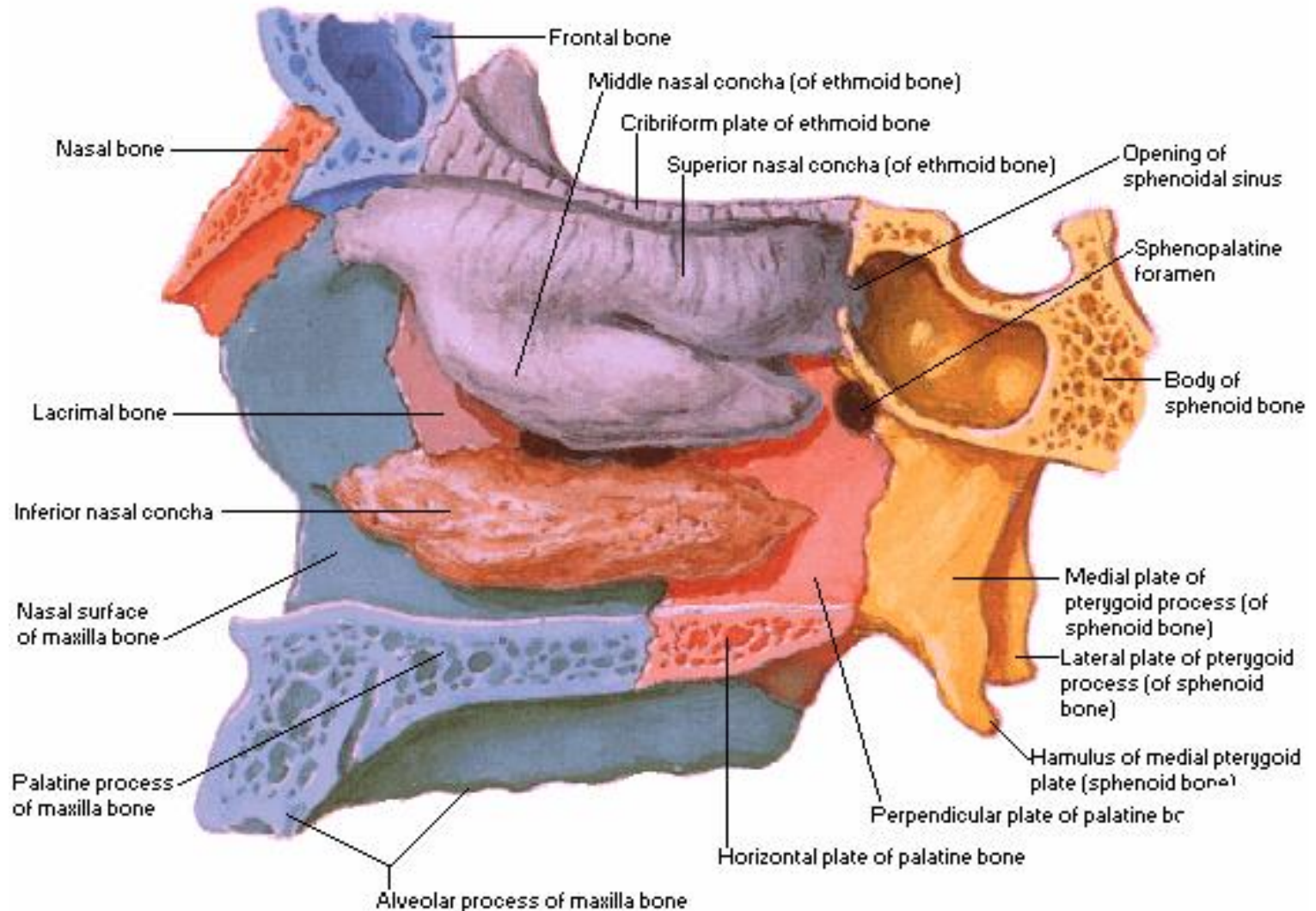
Skull

Midsagittal Section



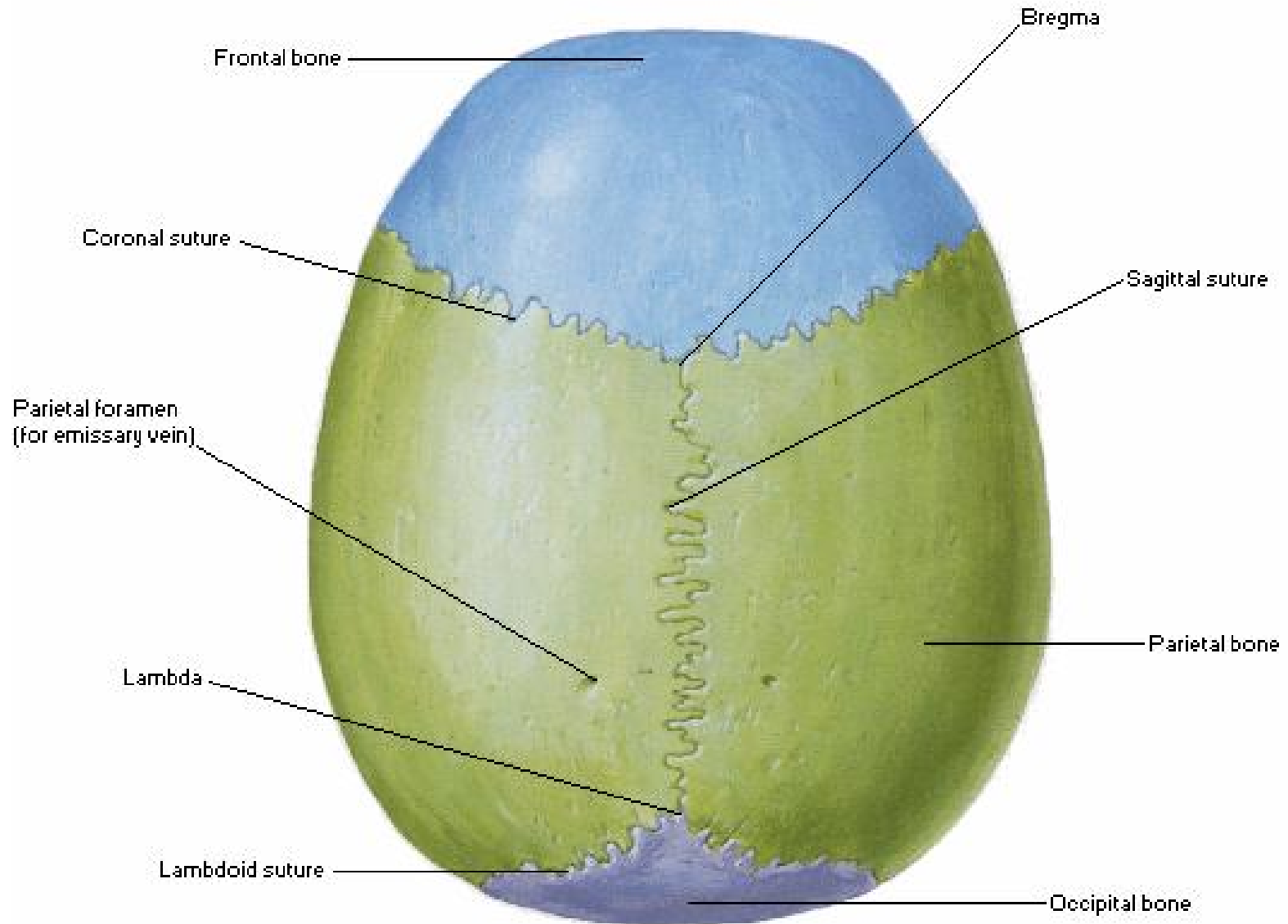
Skull - Nasal Conchae Exposed

Sagittal Section



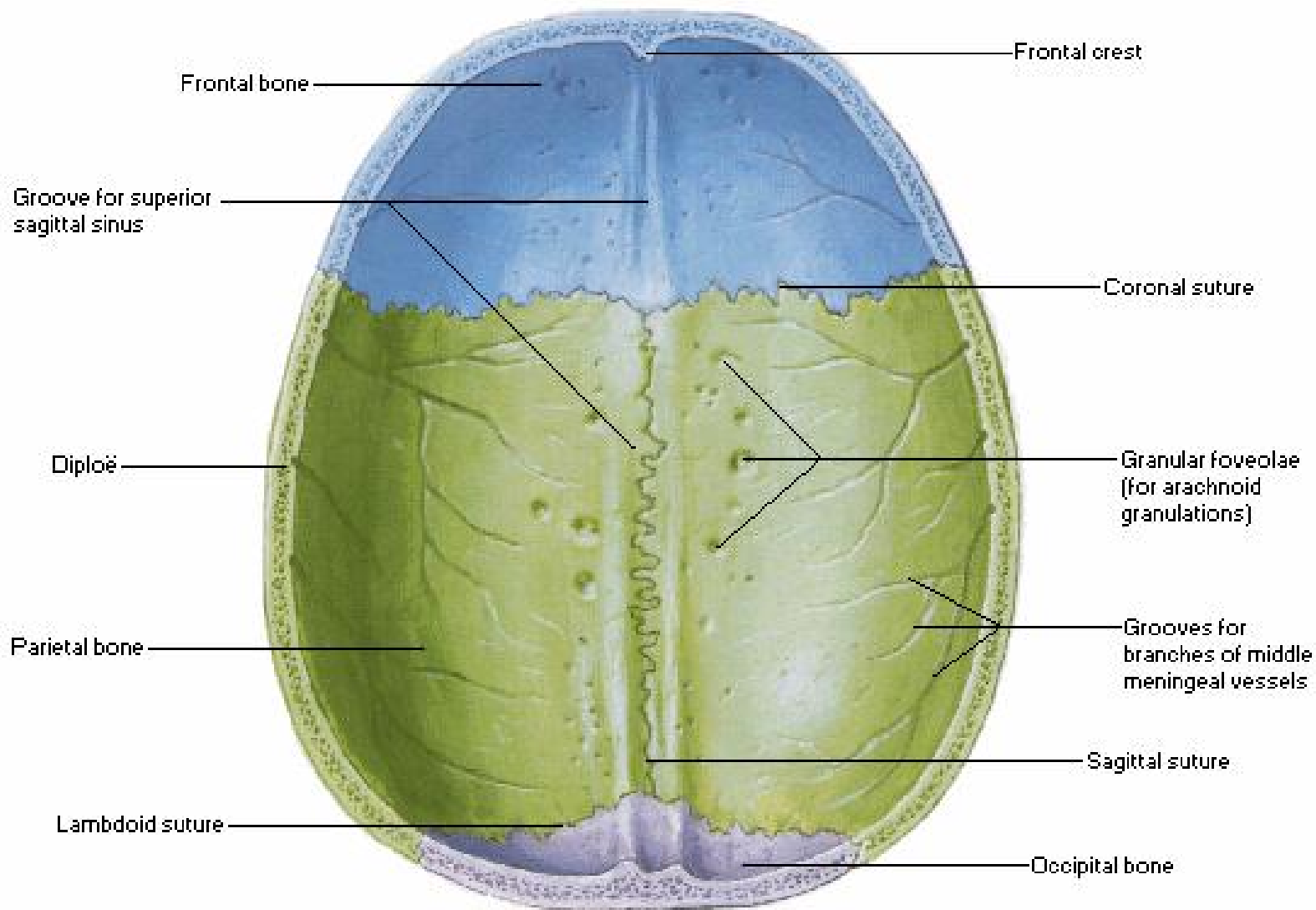
Calvaria

Superior View



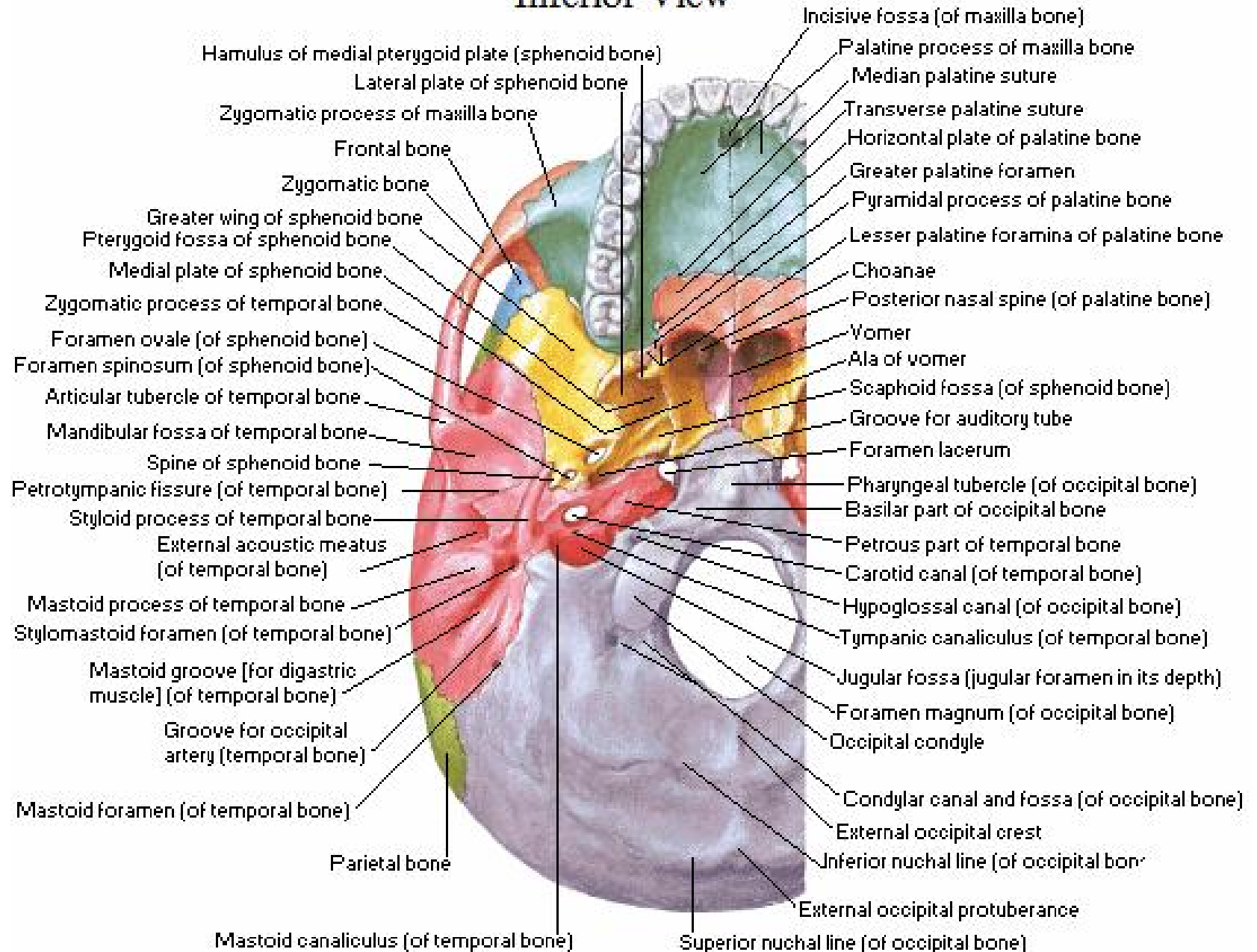
Calvaria

Inferior View



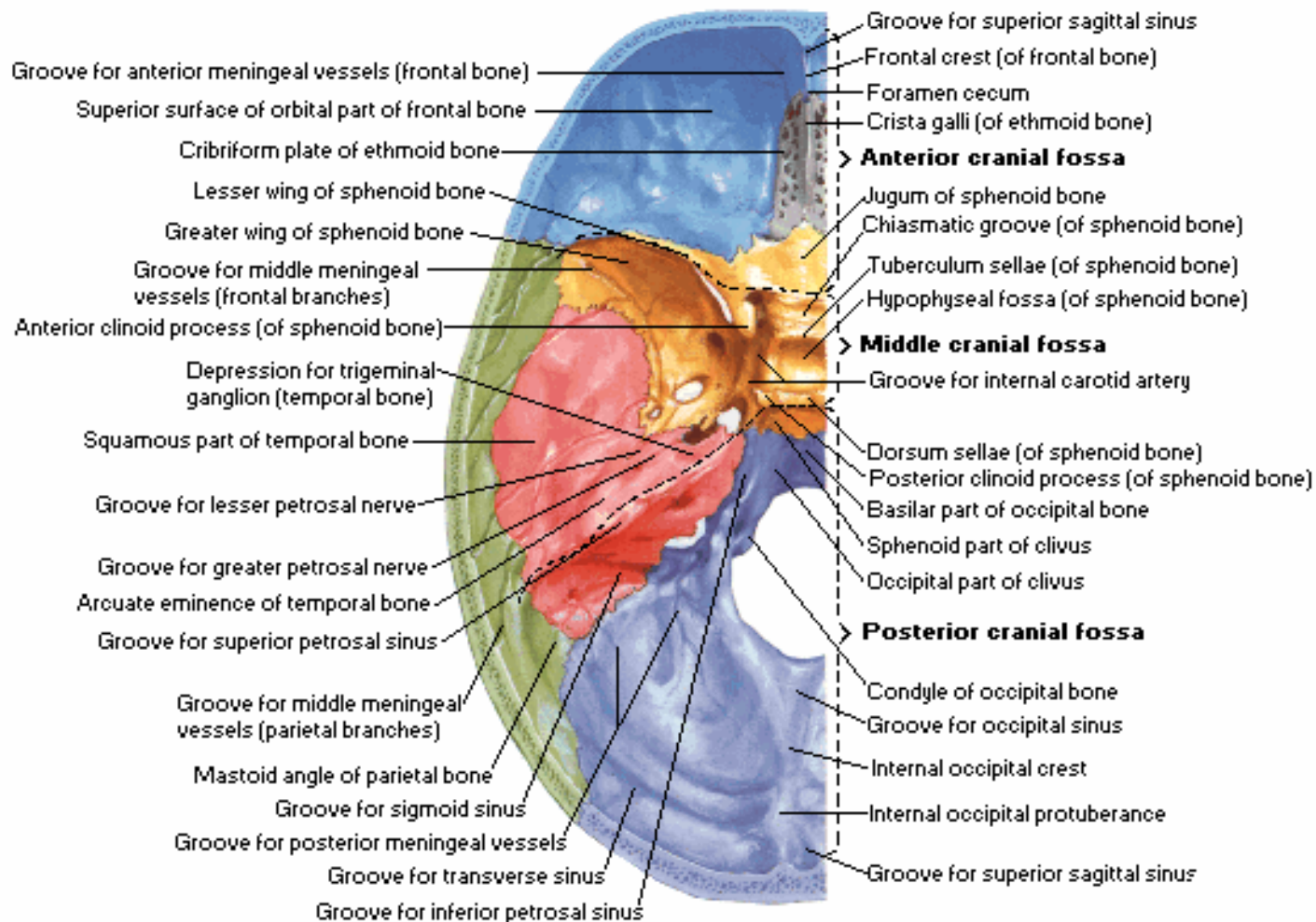
Cranial Base

Inferior View



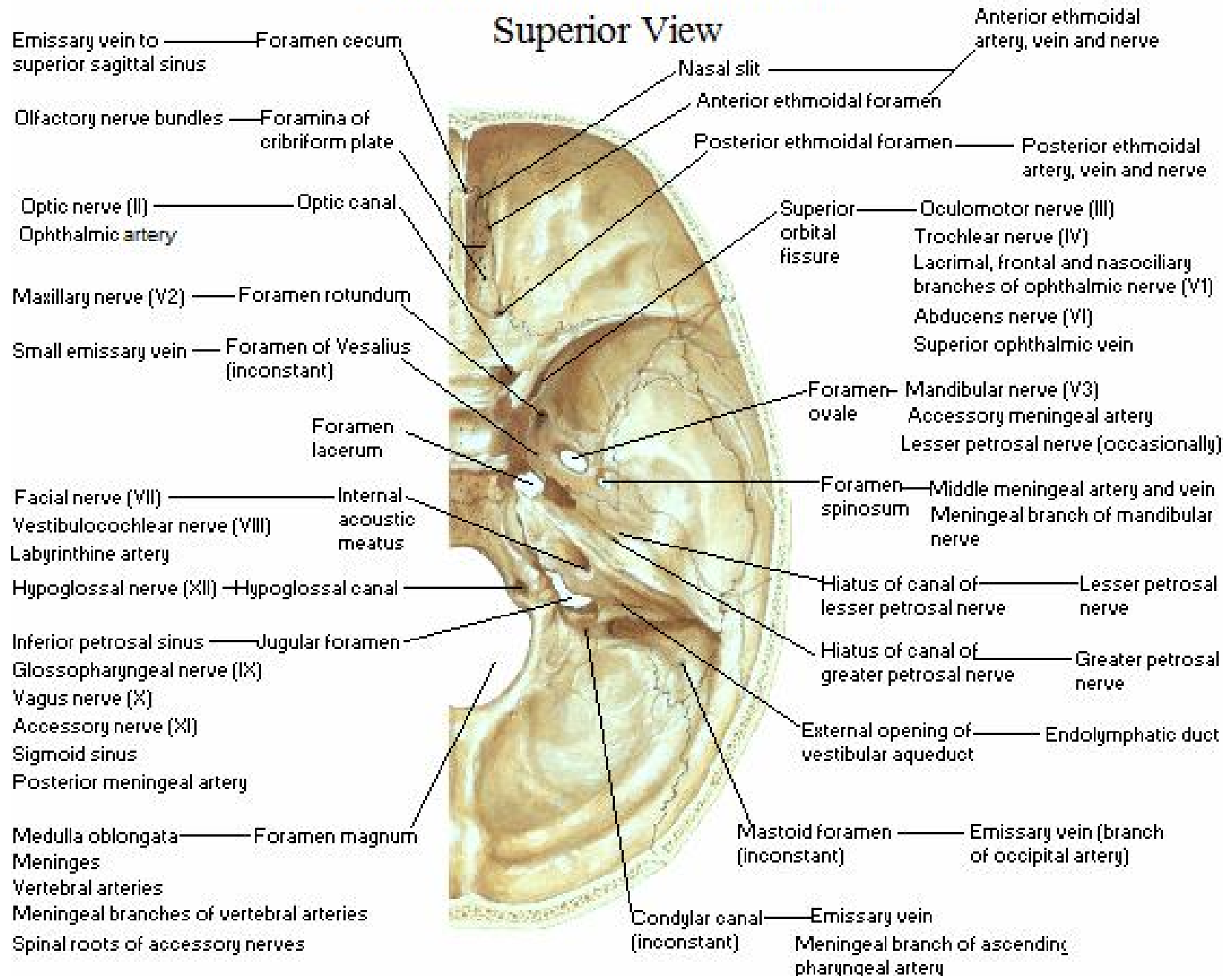
Bones of Cranial Base

Superior View



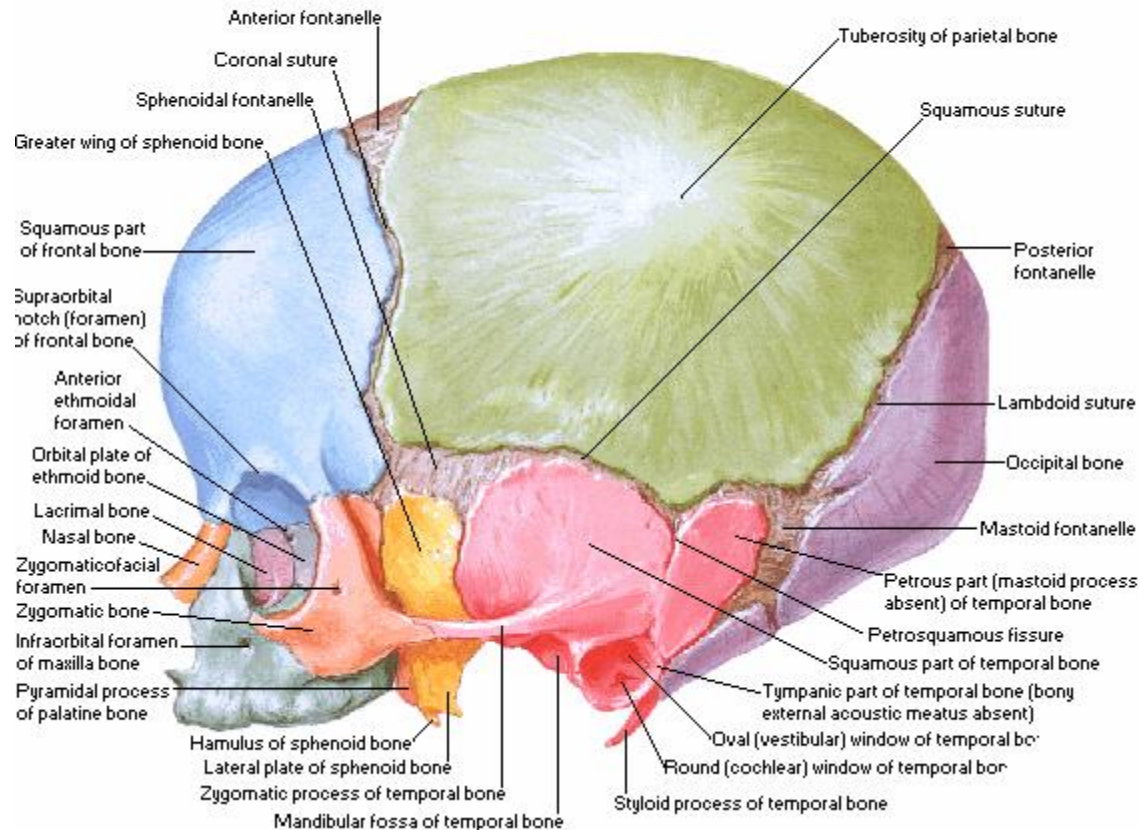
Foramina of Cranial Base

Superior View

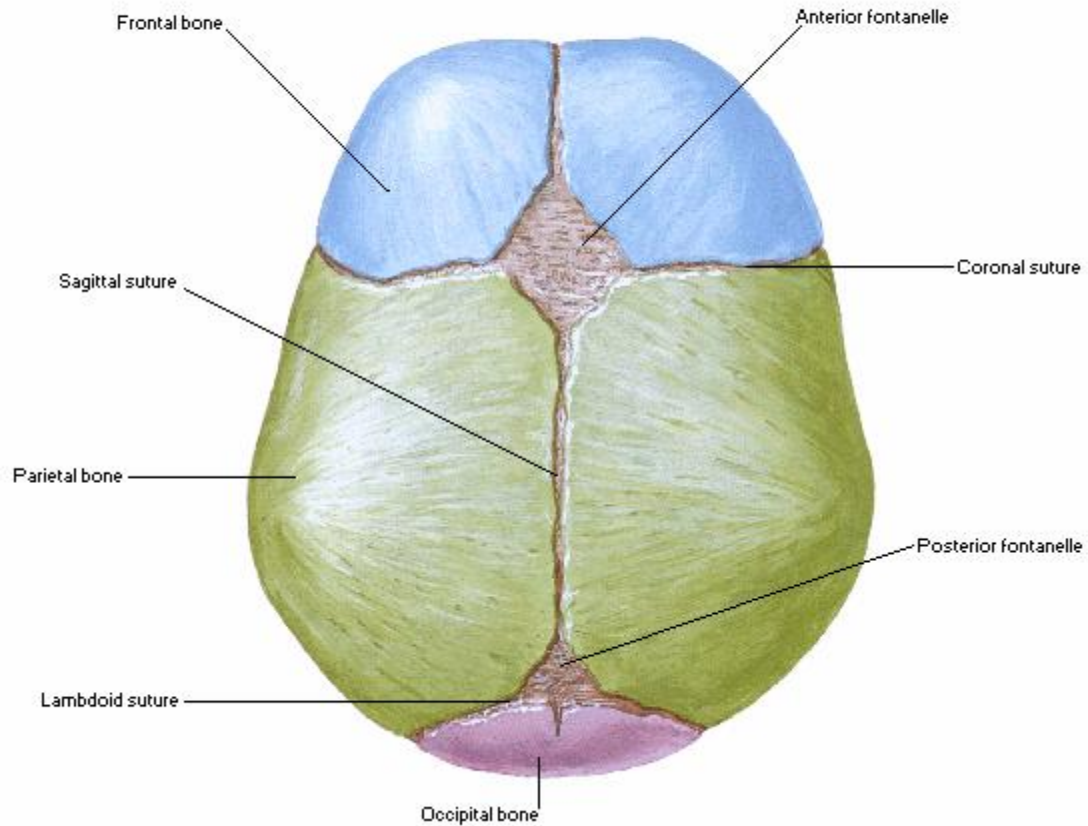


Skull of Newborn

Lateral View

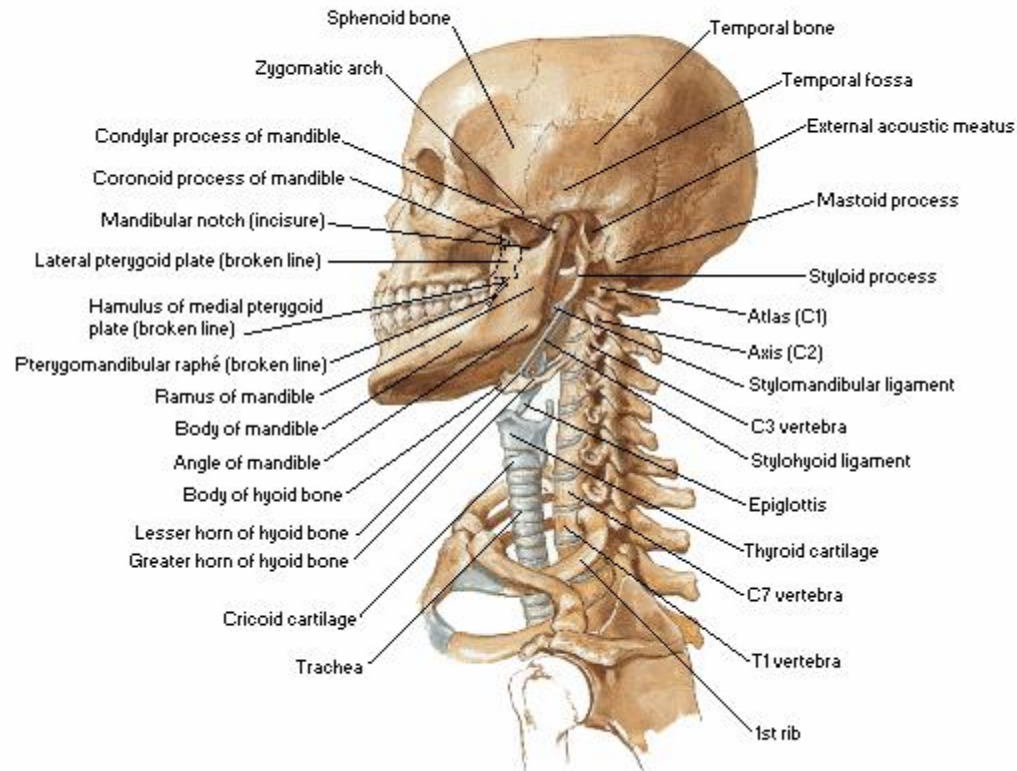


Skull of Newborn Superior View



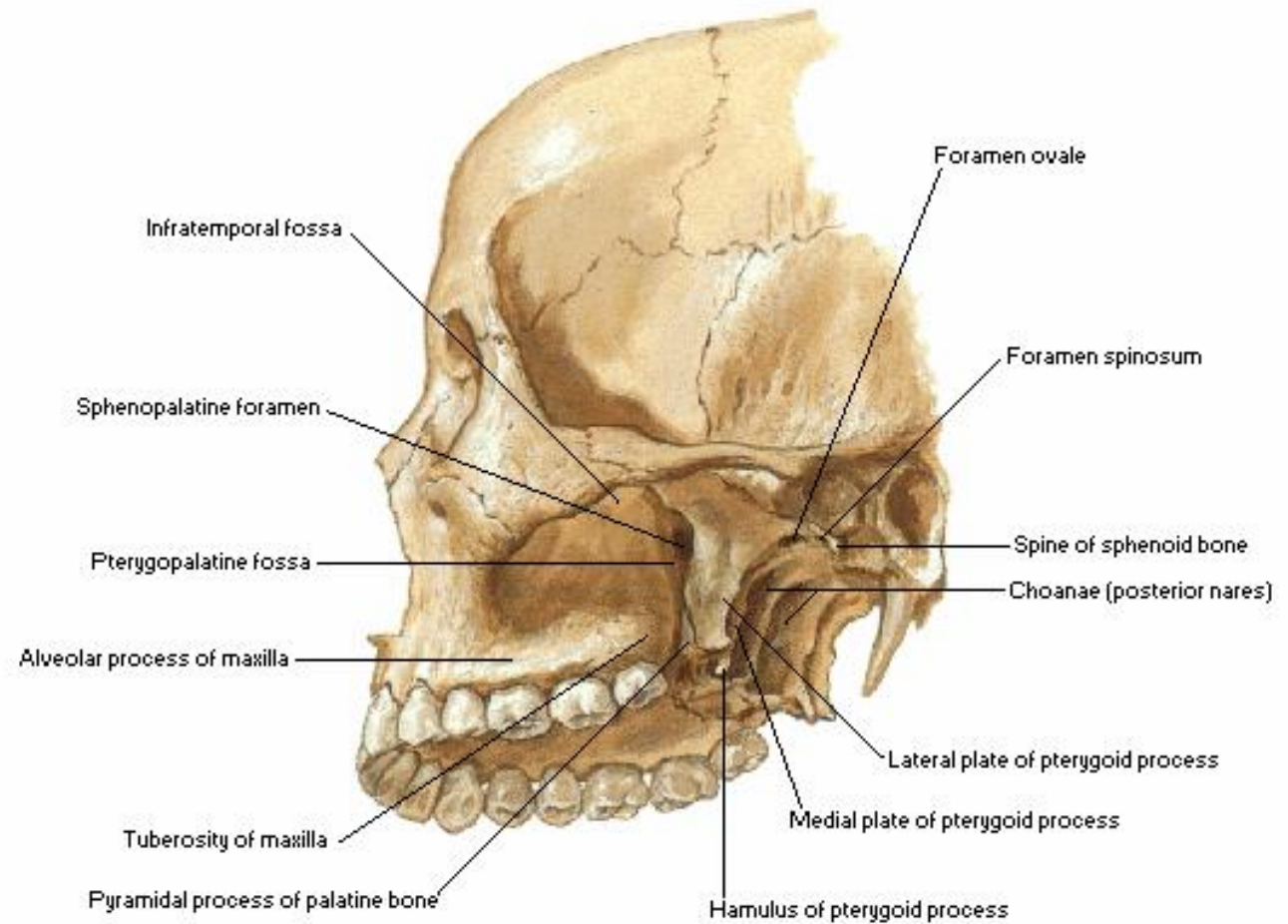
Bony Framework of Head and Neck

Lateral View



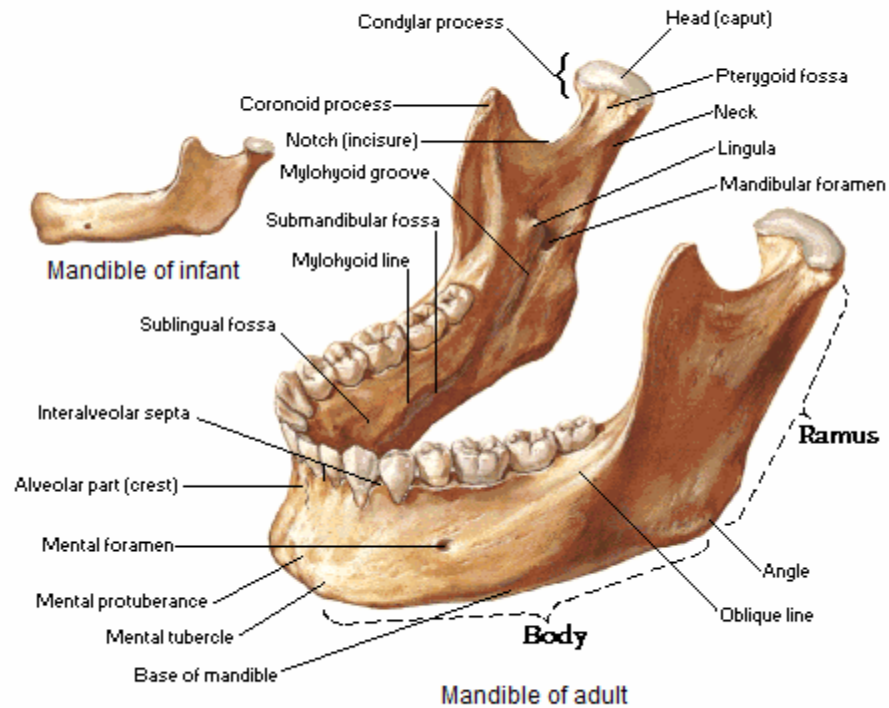
Bony Framework of Head - Mandible Removed

Lateral View



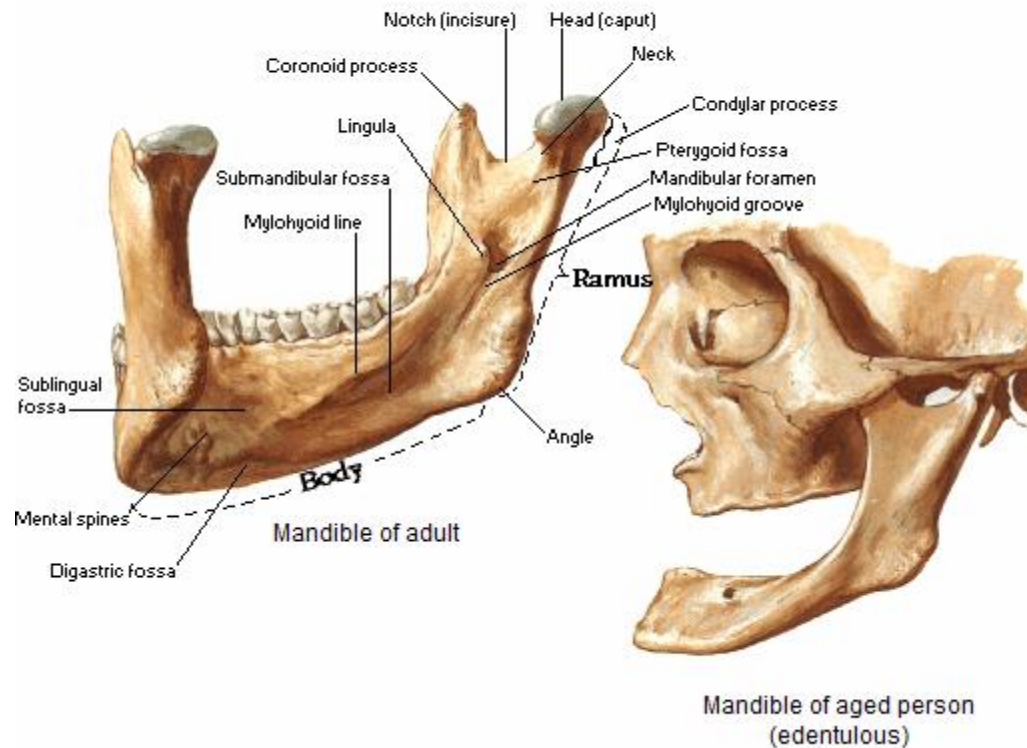
Mandible

Anterolateral Superior View



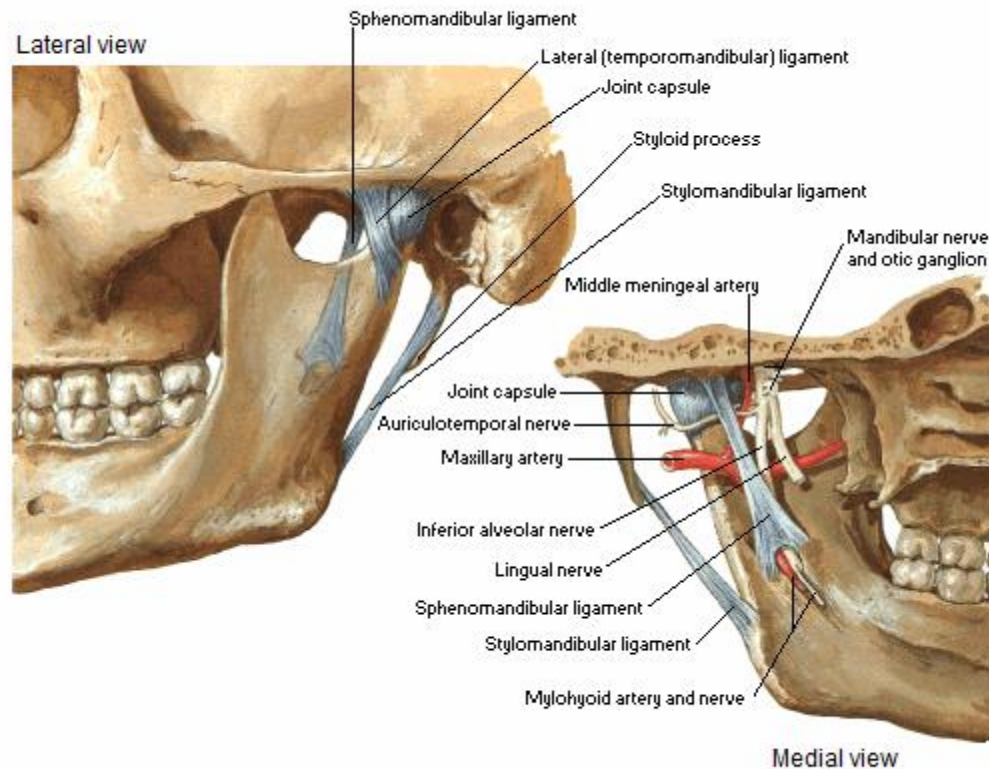
Mandible

Left Posterior View



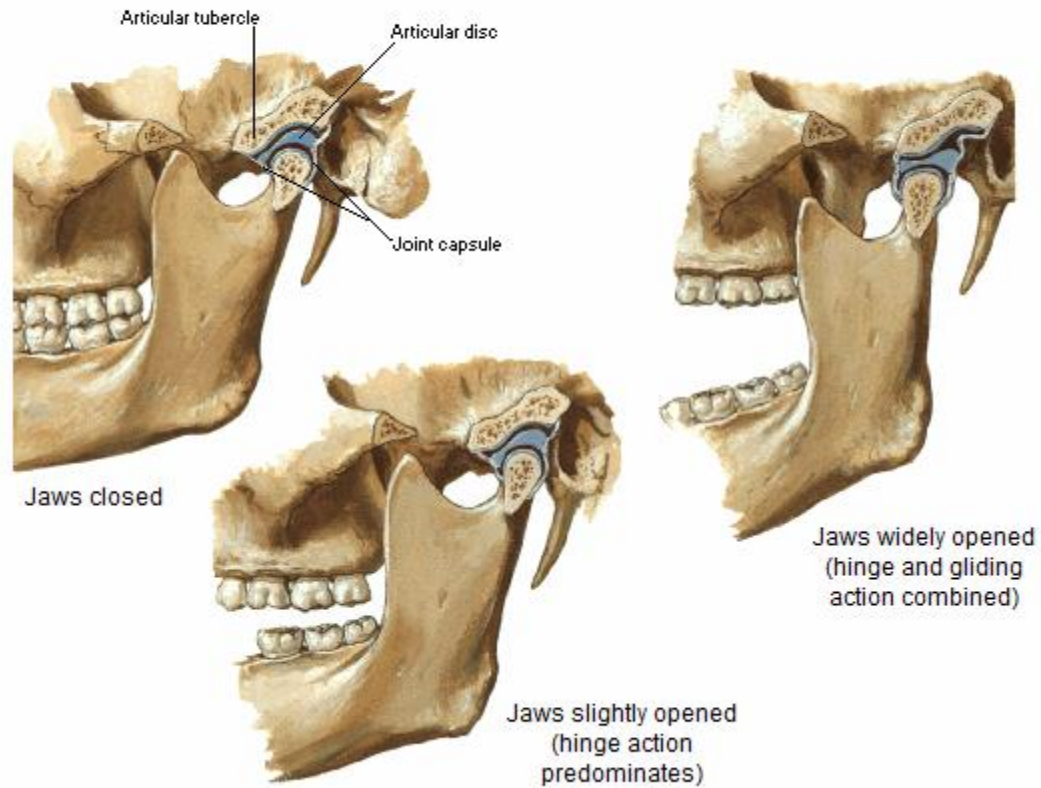
Temporomandibular Joint

Lateral and Medial Views



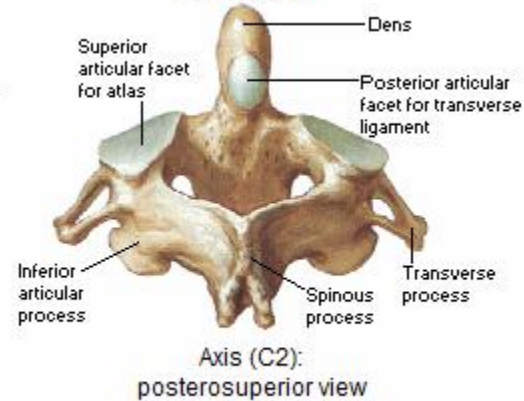
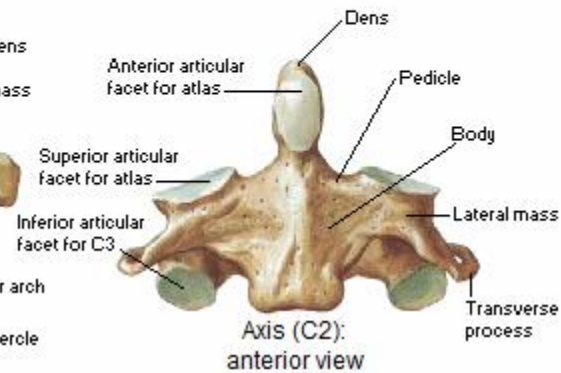
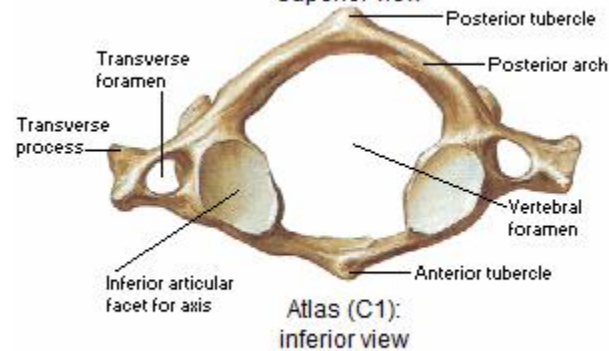
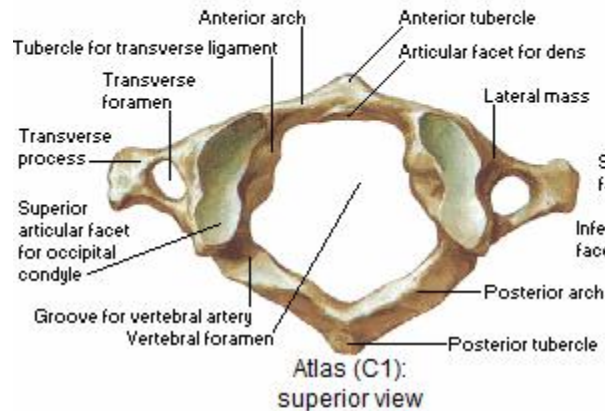
Temporomandibular Joint

Joint Action

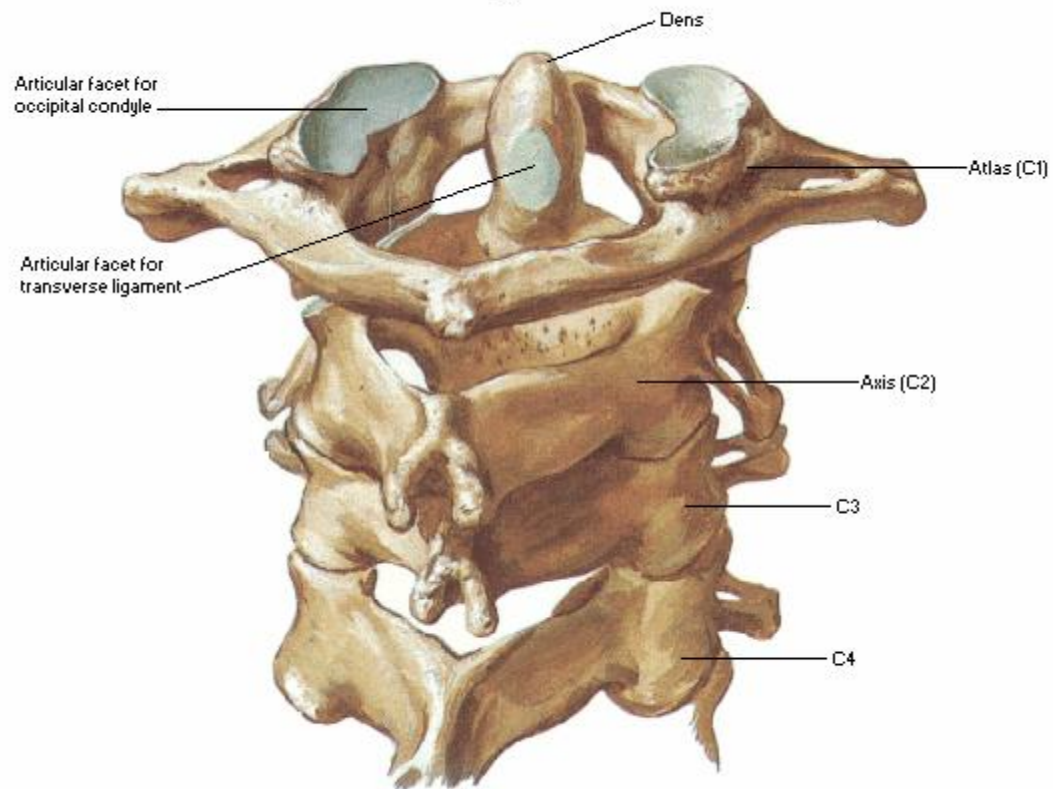


Cervical Vertebrae

Atlas and Axis

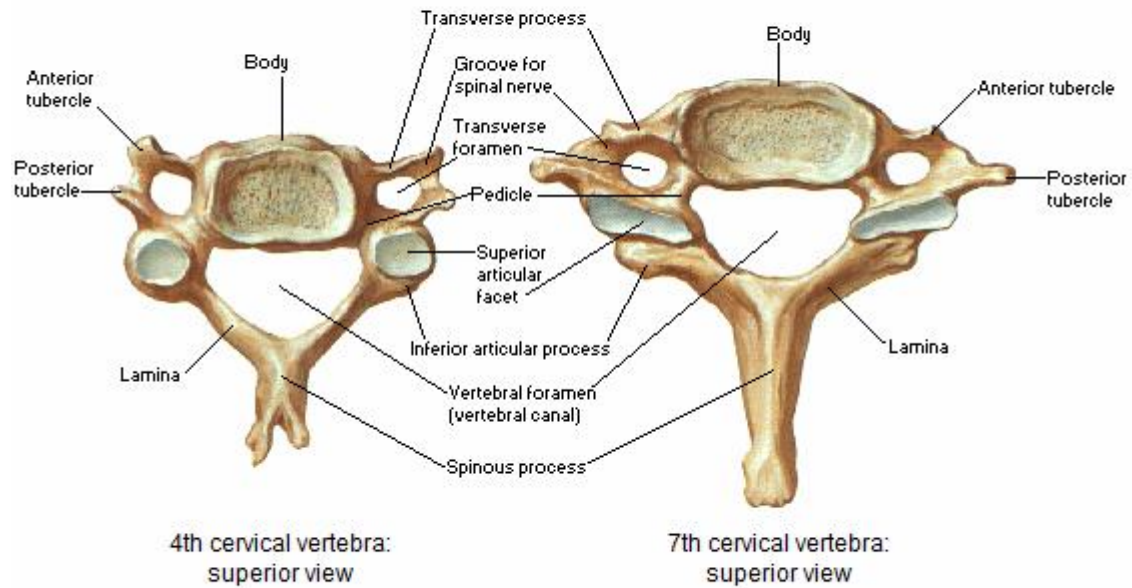


Cervical Vertebrae [C1-C4], Assembled Posterosuperior View



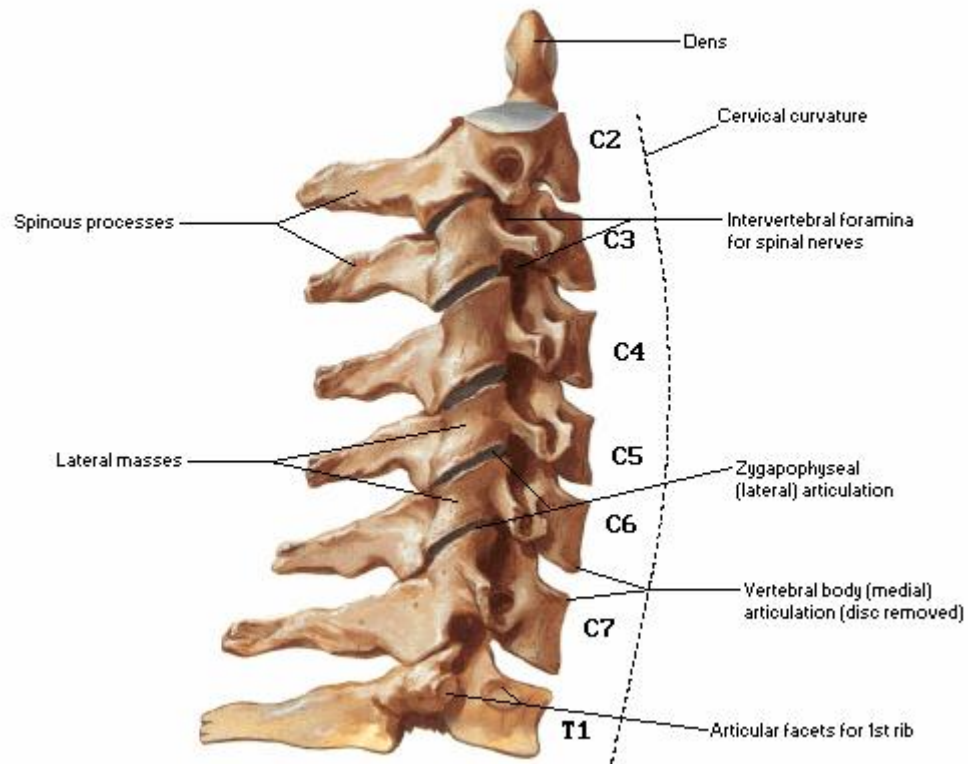
Cervical Vertebrae [C4 and C7]

Superior Views



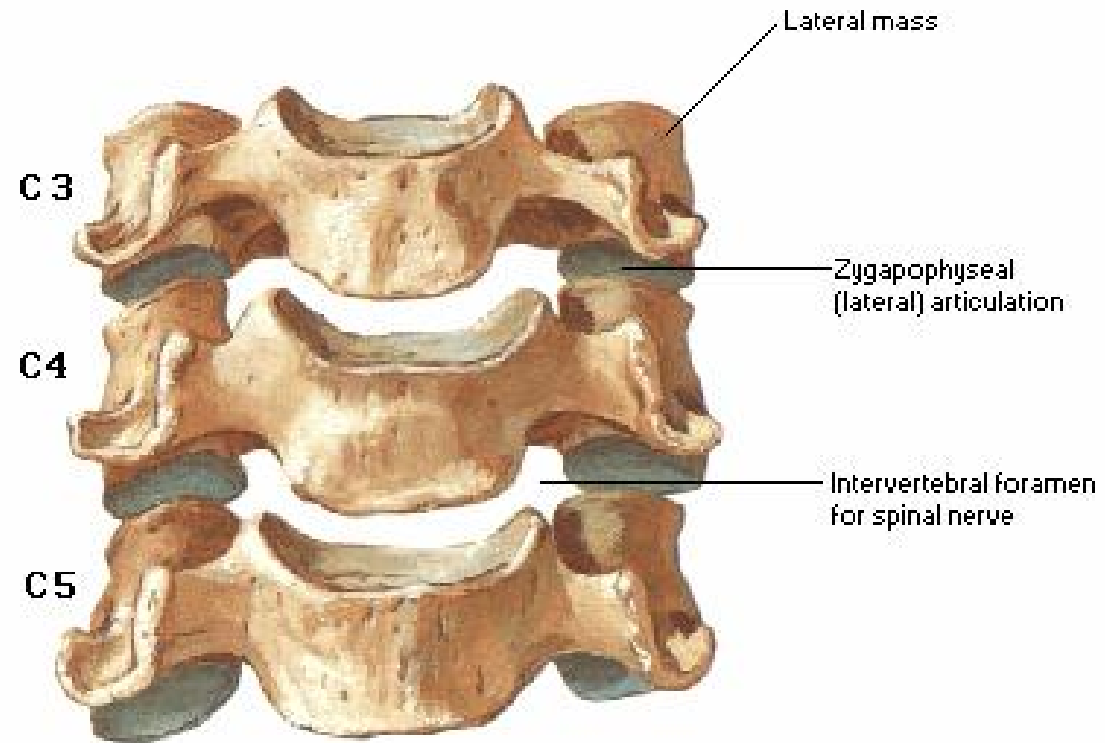
Cervical Vertebrae [C2-T1], Assembled

Right Lateral View



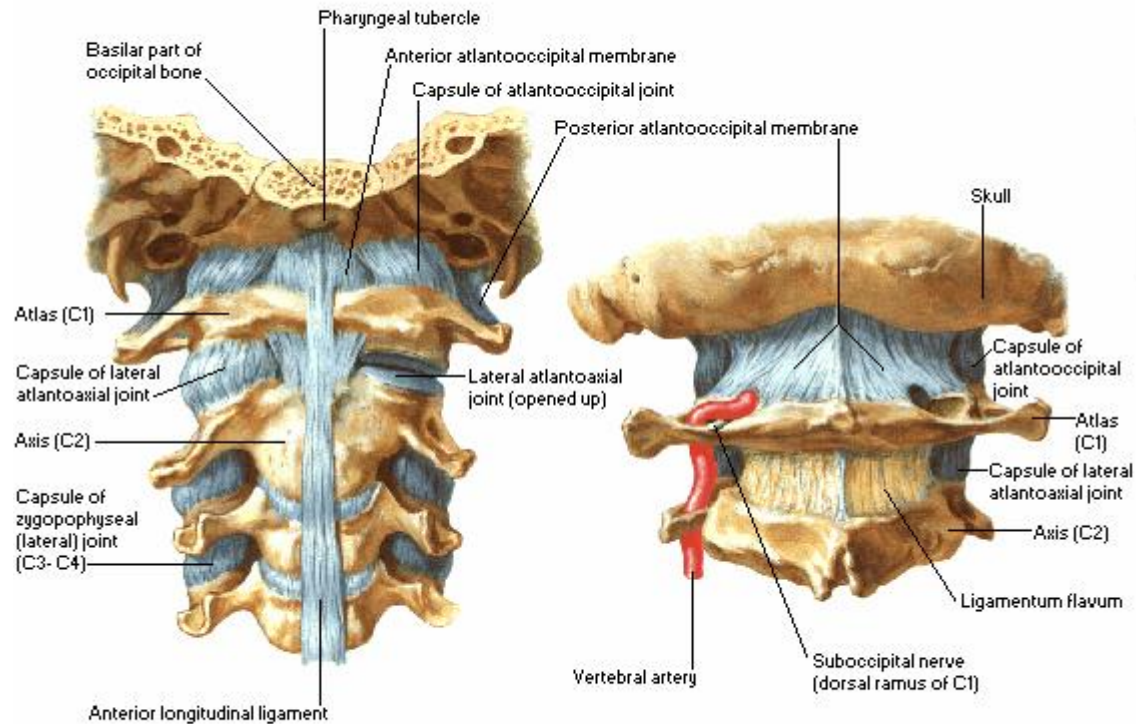
Cervical Vertebrae [C3-C5], Assembled

Anterior View



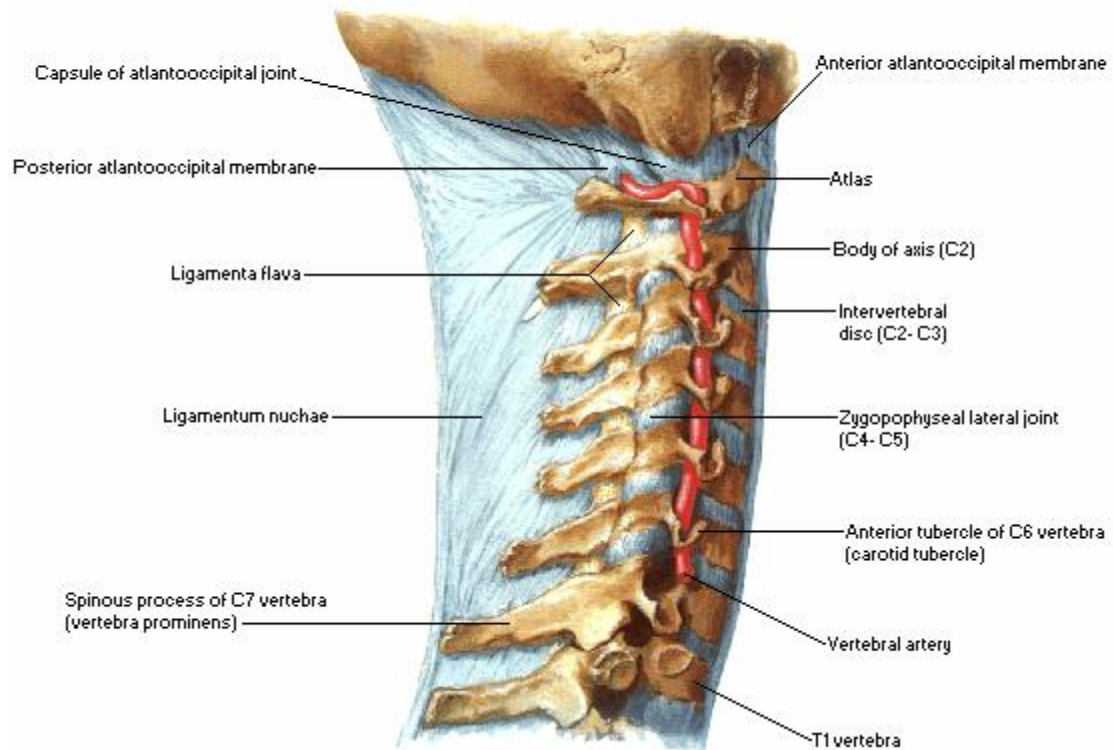
External Craniocervical Ligaments

Anterior and Posterior Views



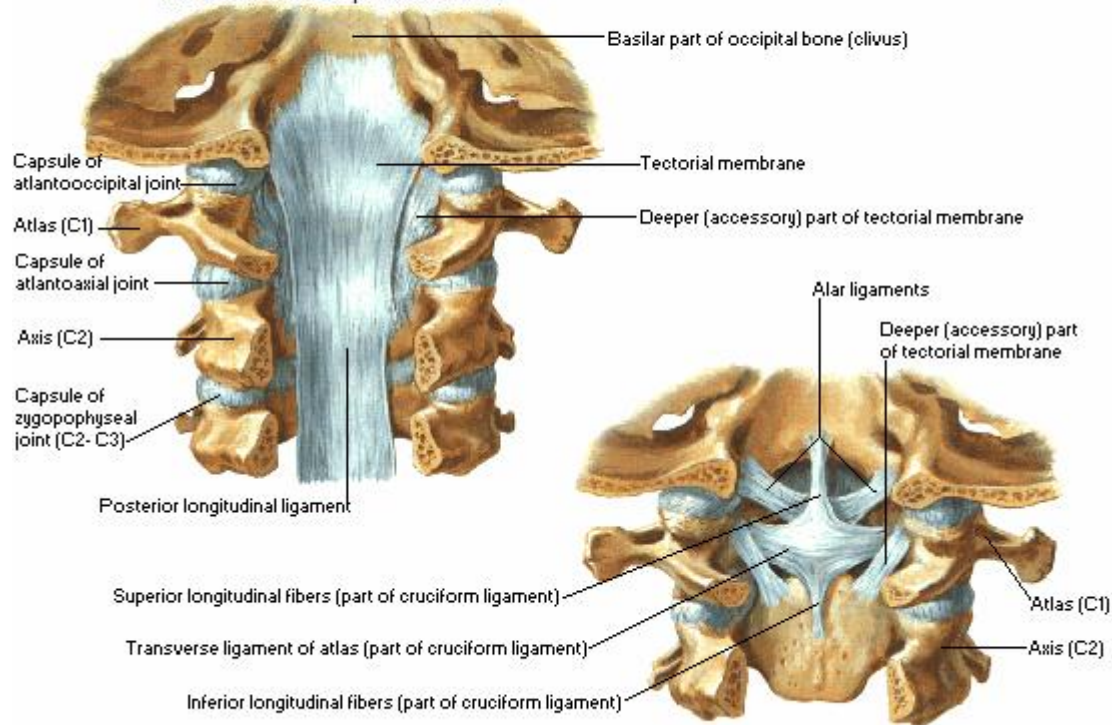
External Craniocervical Ligaments

Right Lateral View



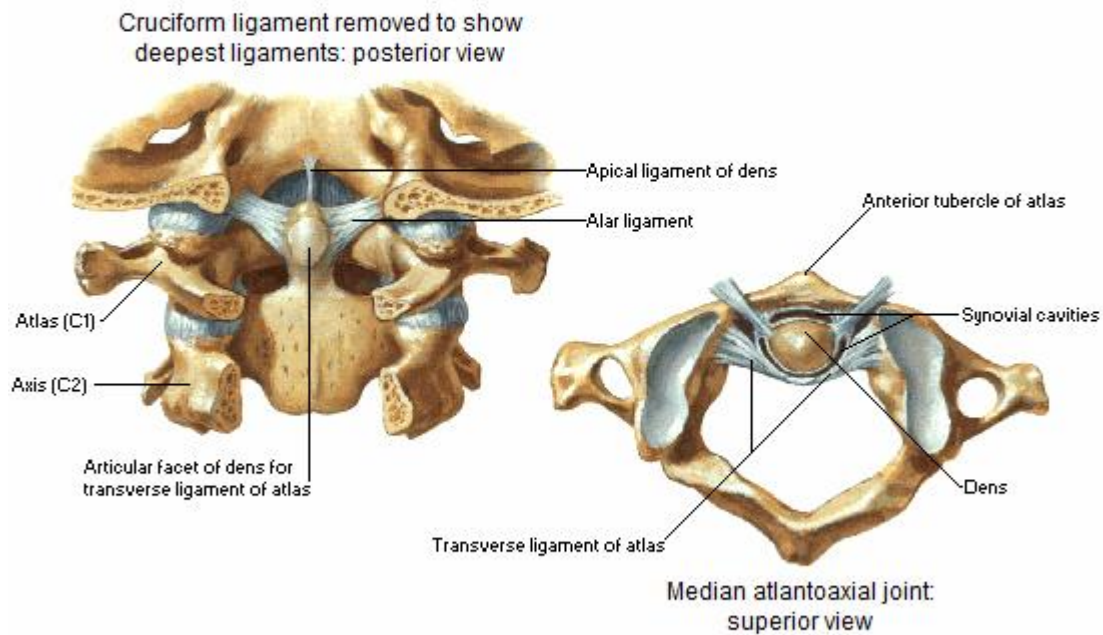
Internal Craniocervical Ligaments

Upper part of vertebral canal with spinous processes and parts of vertebral arches removed to expose ligaments on posterior vertebral bodies: posterior view

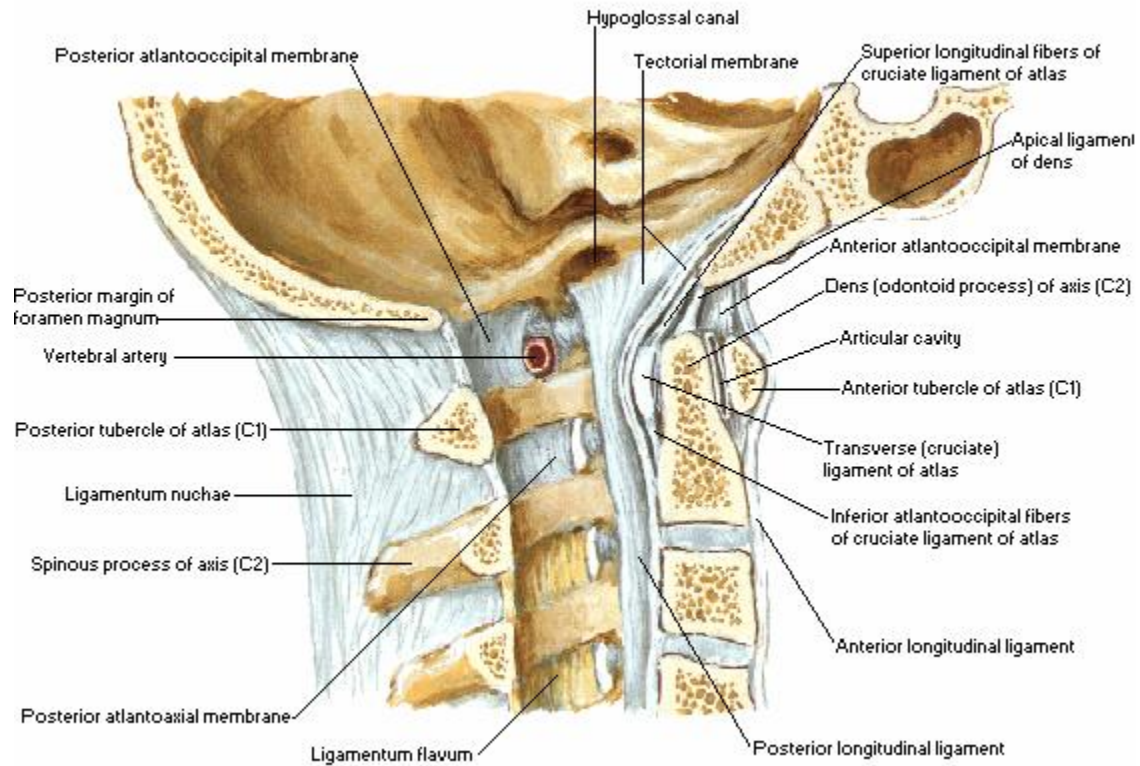


Principal part of tectorial membrane removed to expose deeper ligaments: posterior view

Internal Craniocervical Ligaments [Continued]

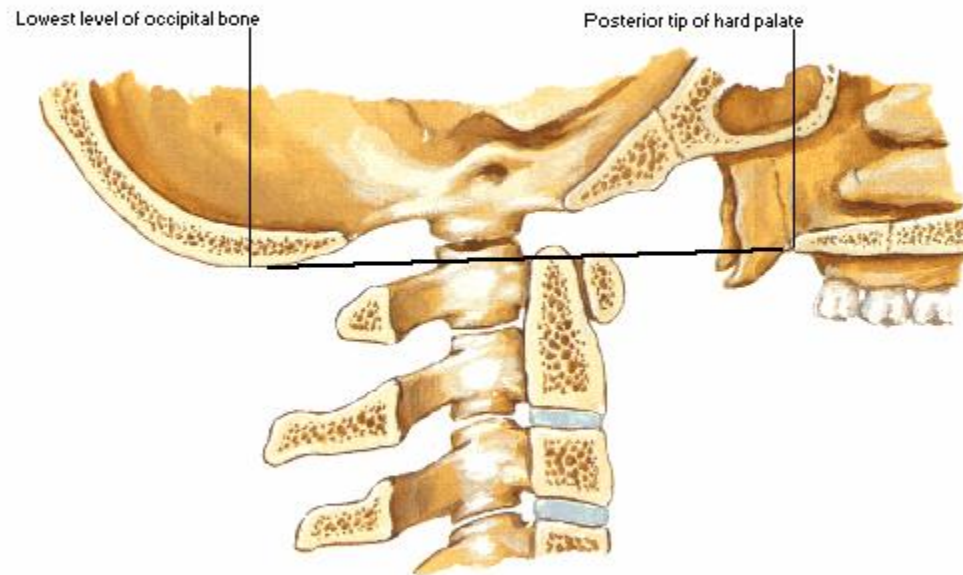


Atlantooccipital Junction



Atlantooccipital Junction

McGregor's Line



McGregor's line, from posterior tip of hard palate to lowest point of occipital bone. Average normal position of odontoid tip is 1.32 mm above this line with standard deviation of plus or minus 2.6 mm as measured on a standard lateral radiograph. Tip > 4.5 mm above line is considered to indicate basilar impression.

Atlantooccipital Junction

Odontoid Abnormalities

Odontoid abnormalities, most often associated with skeletal dysplasias such as Klippel-Feil, Down's or Morquio's syndromes

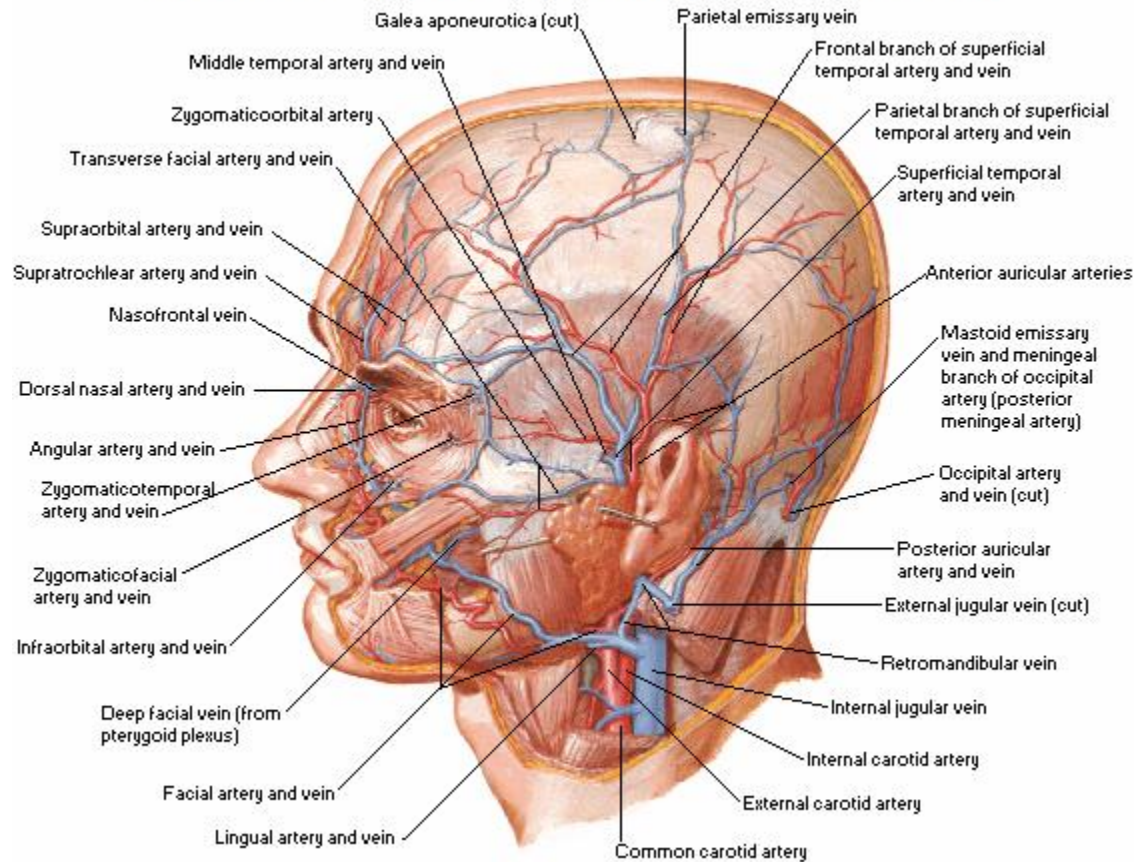


Hypoplastic dens
(odontoid process)



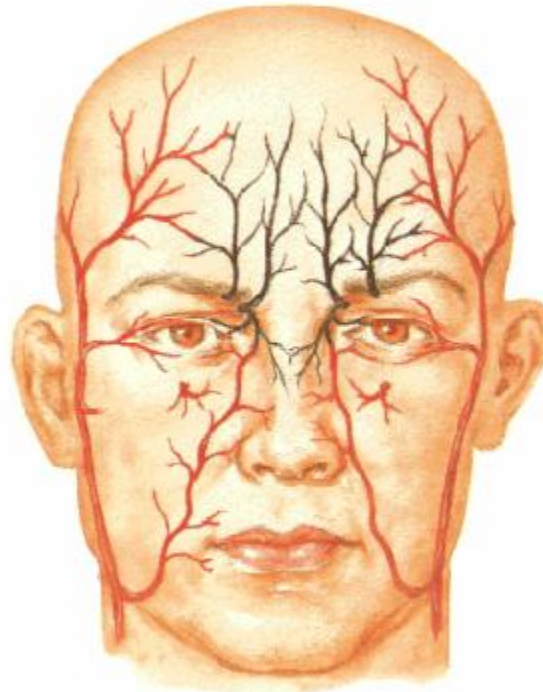
Os odontoideum with fibrous
union and narrowing of vertebral
canal with head in extension

Superficial Arteries and Veins of Face and Scalp



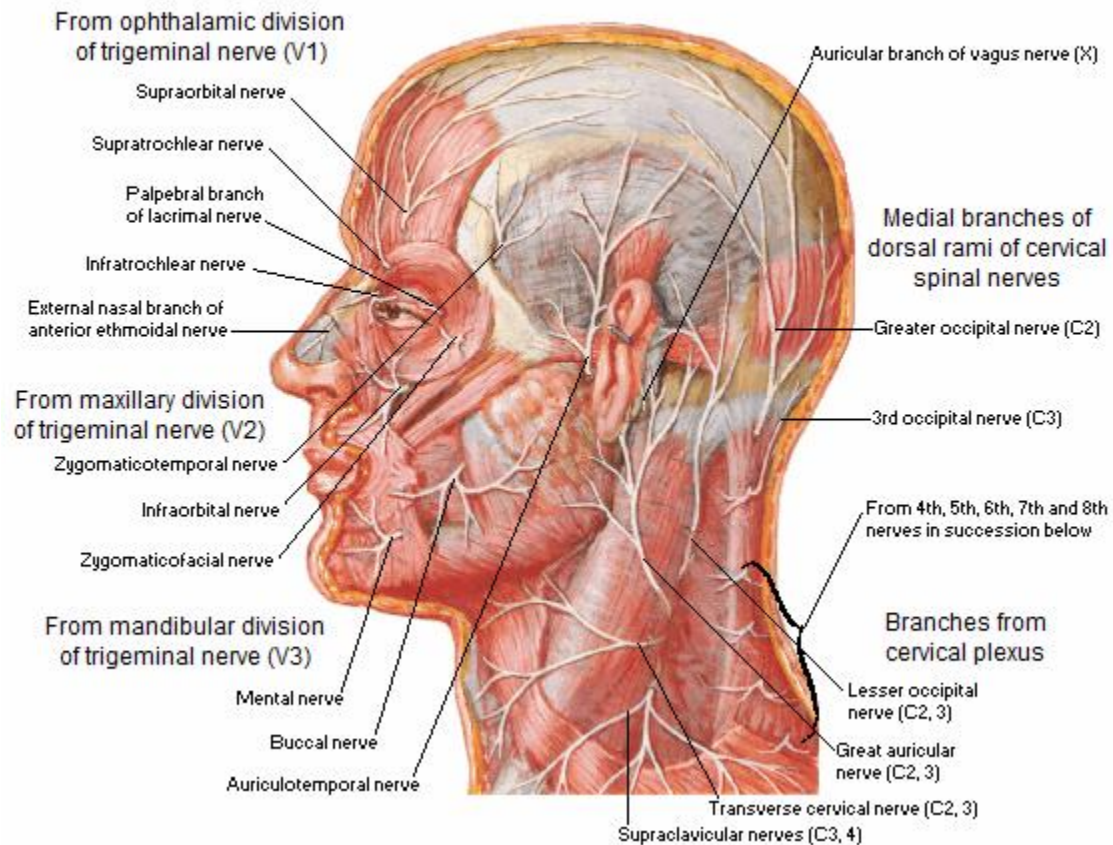
Superficial Face

Sources of Arterial Supply

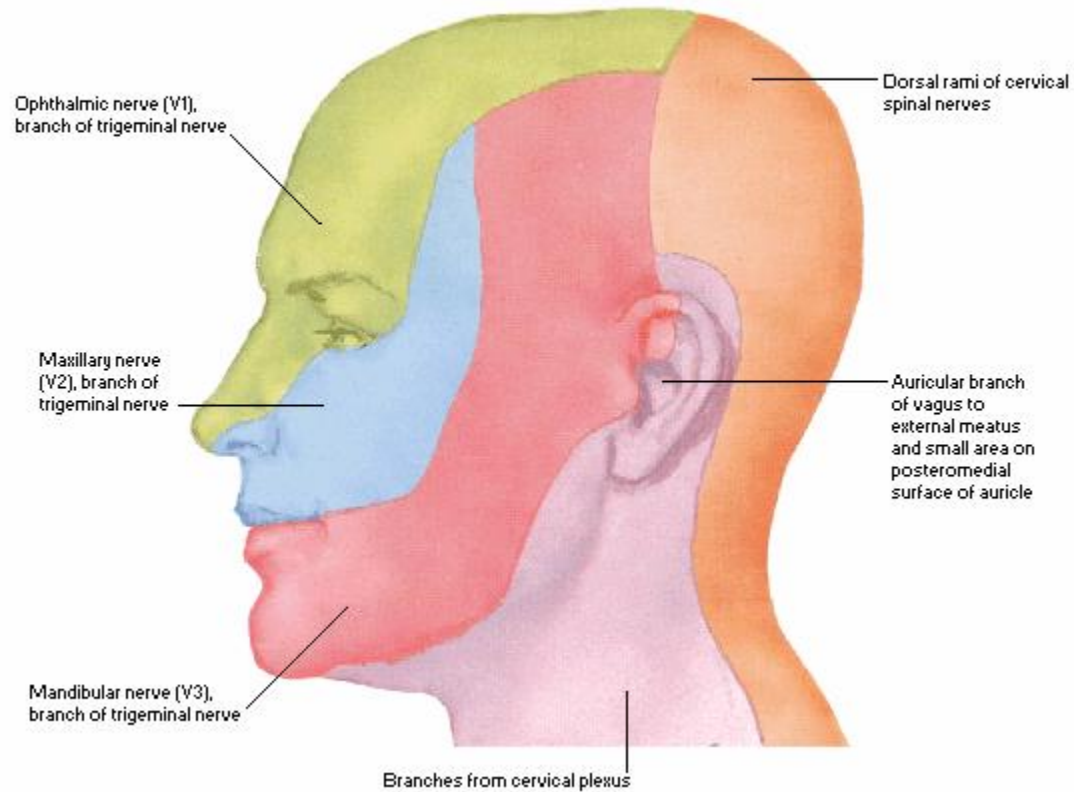


Black: from internal carotid artery (via ophthalmic artery)
Red: from external carotid artery

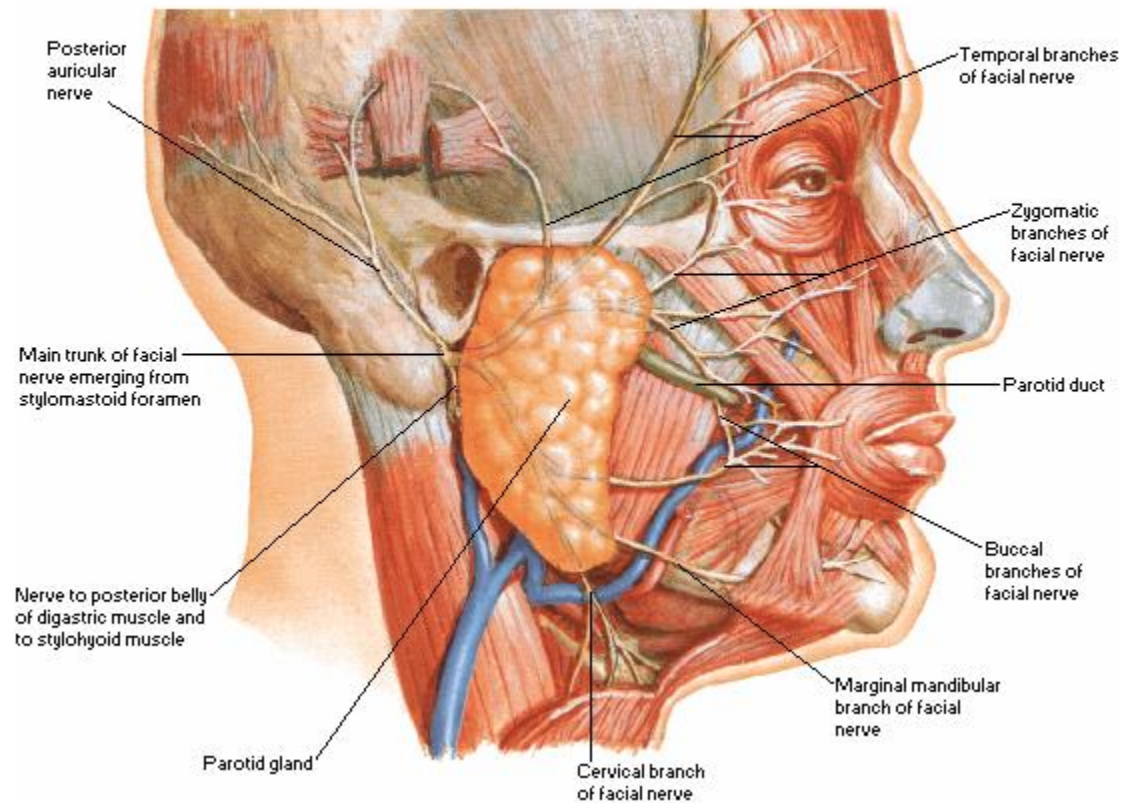
Cutaneous Nerves of Head and Neck



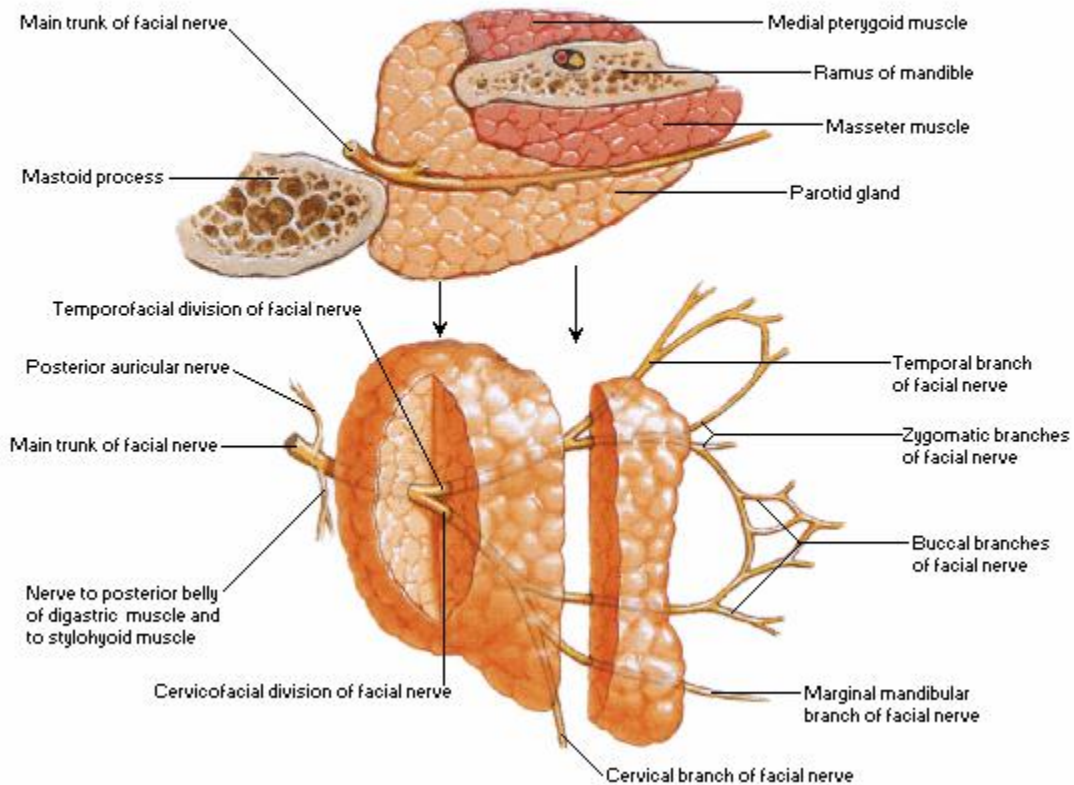
Dermatomes of Head and Neck



Facial Nerve Branches and Parotid Gland in Situ

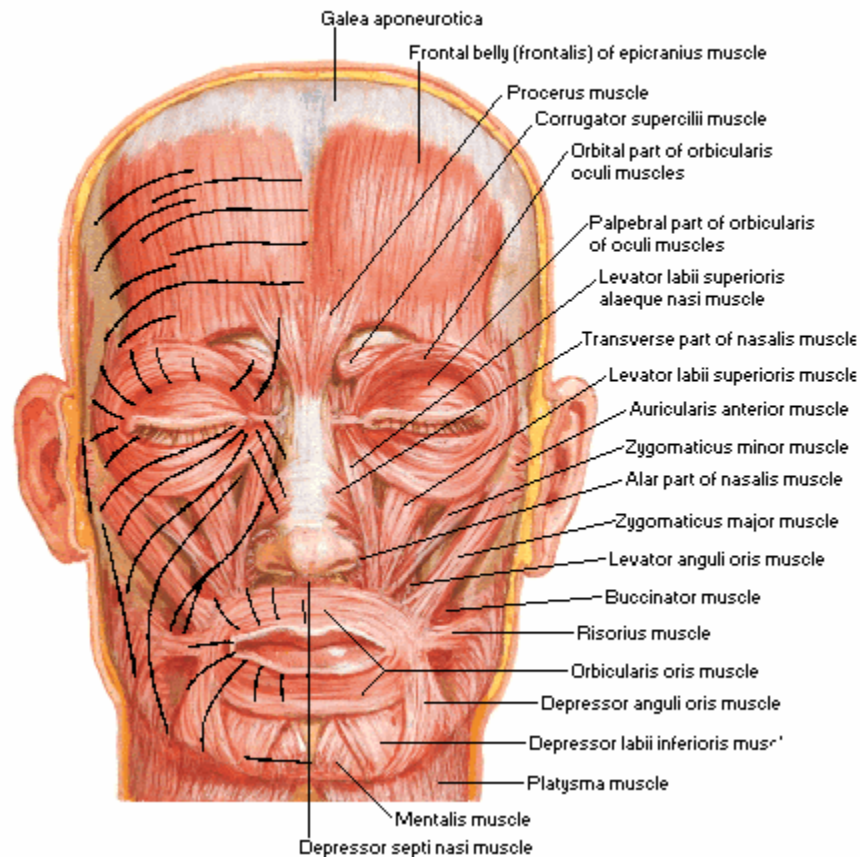


Facial Nerve Branches and Parotid Gland Sectioned



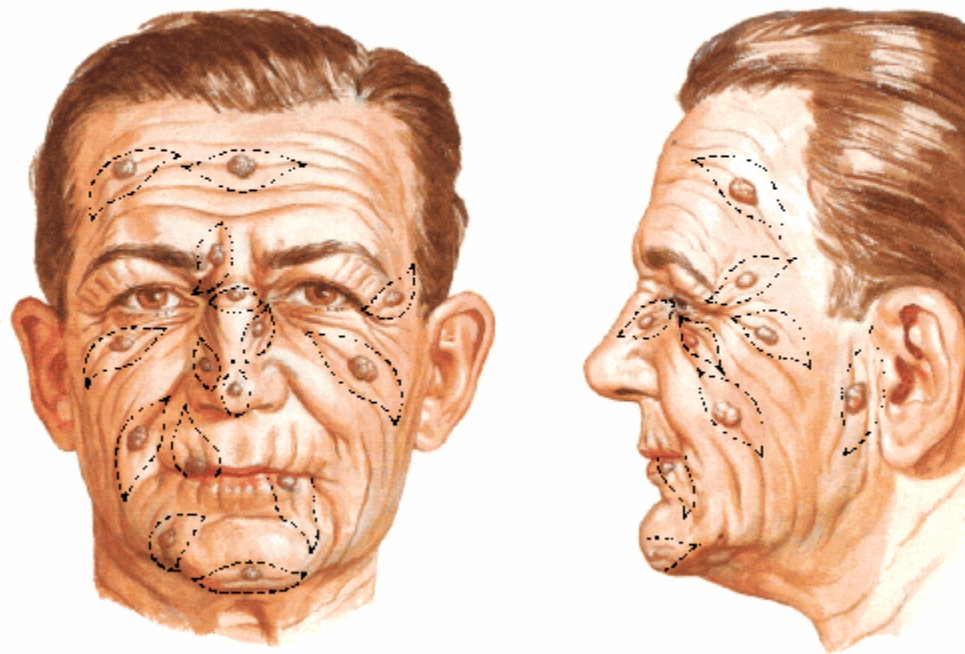
Muscles of Facial Expression

Anterior View



Superficial Face

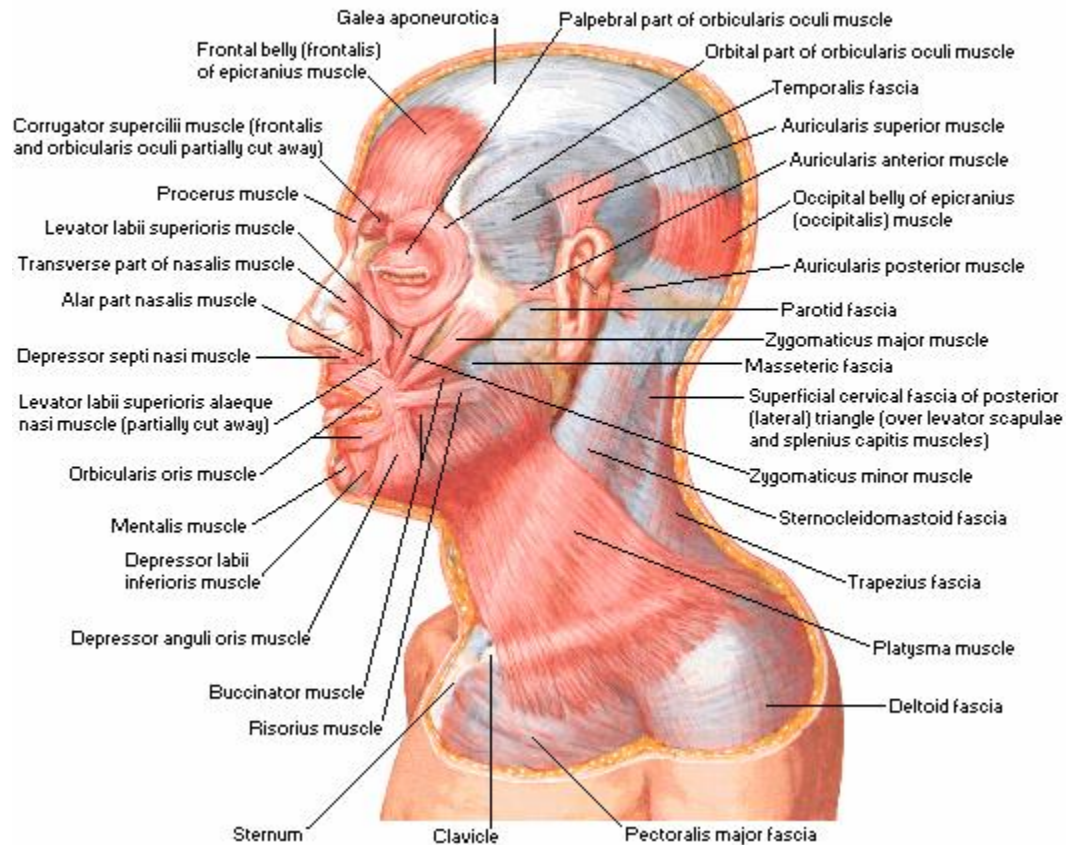
Course of Wrinkle Lines of Skin



Course of wrinkle lines of skin is transverse to fiber direction of facial muscles. Elliptical incisions for removal of skin tumors conform to direction of wrinkle lines

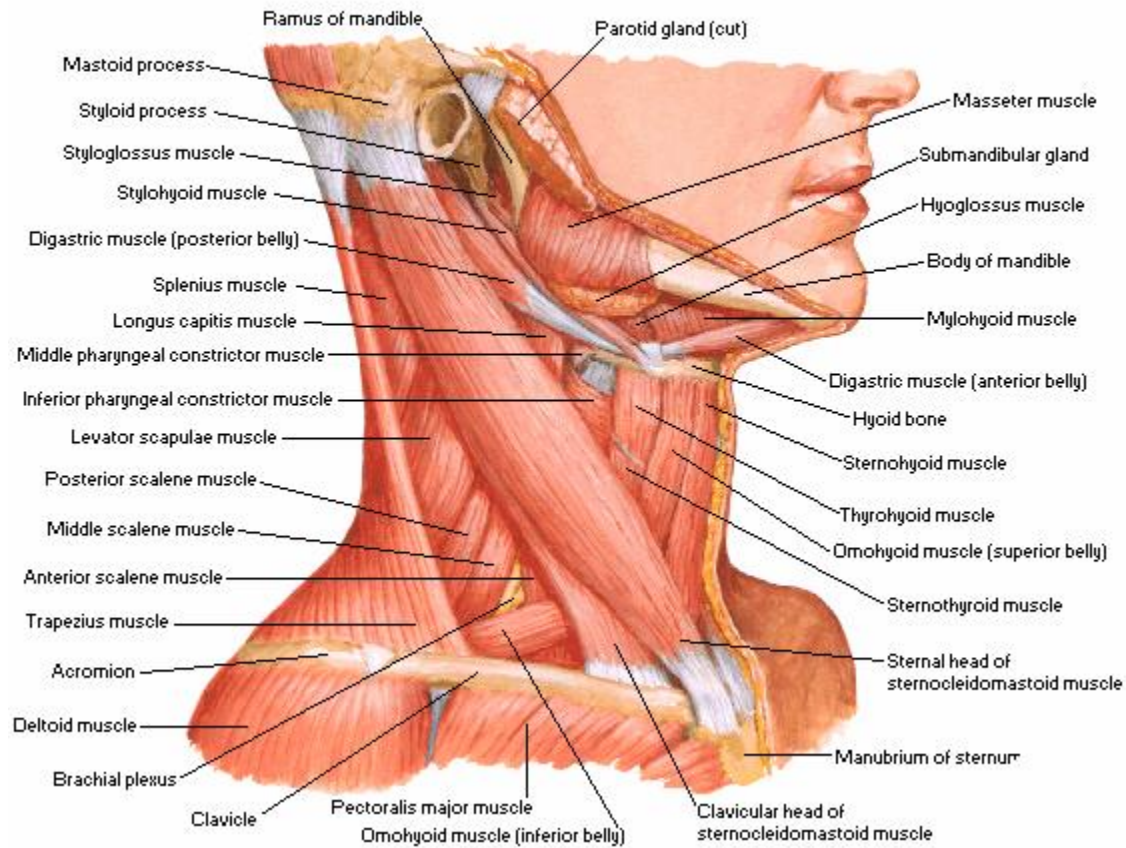
Muscles of Facial Expression

Lateral View



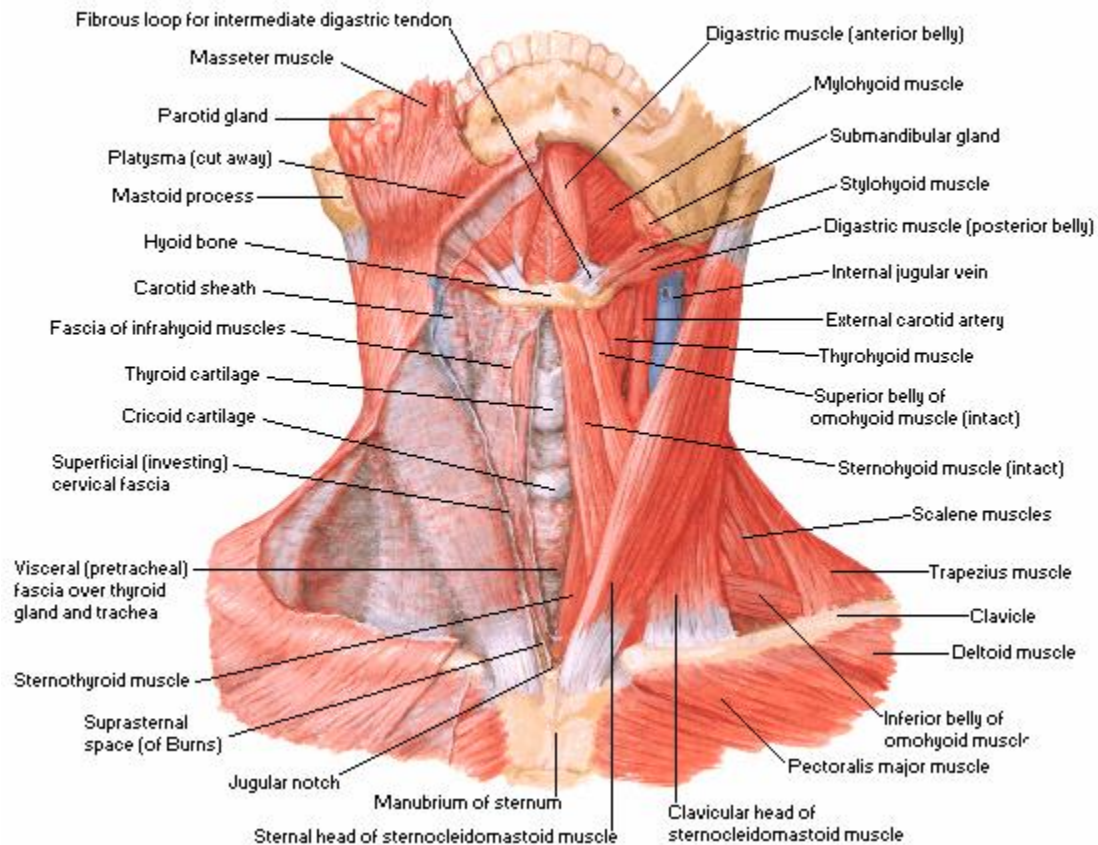
Muscles of Neck

Lateral View

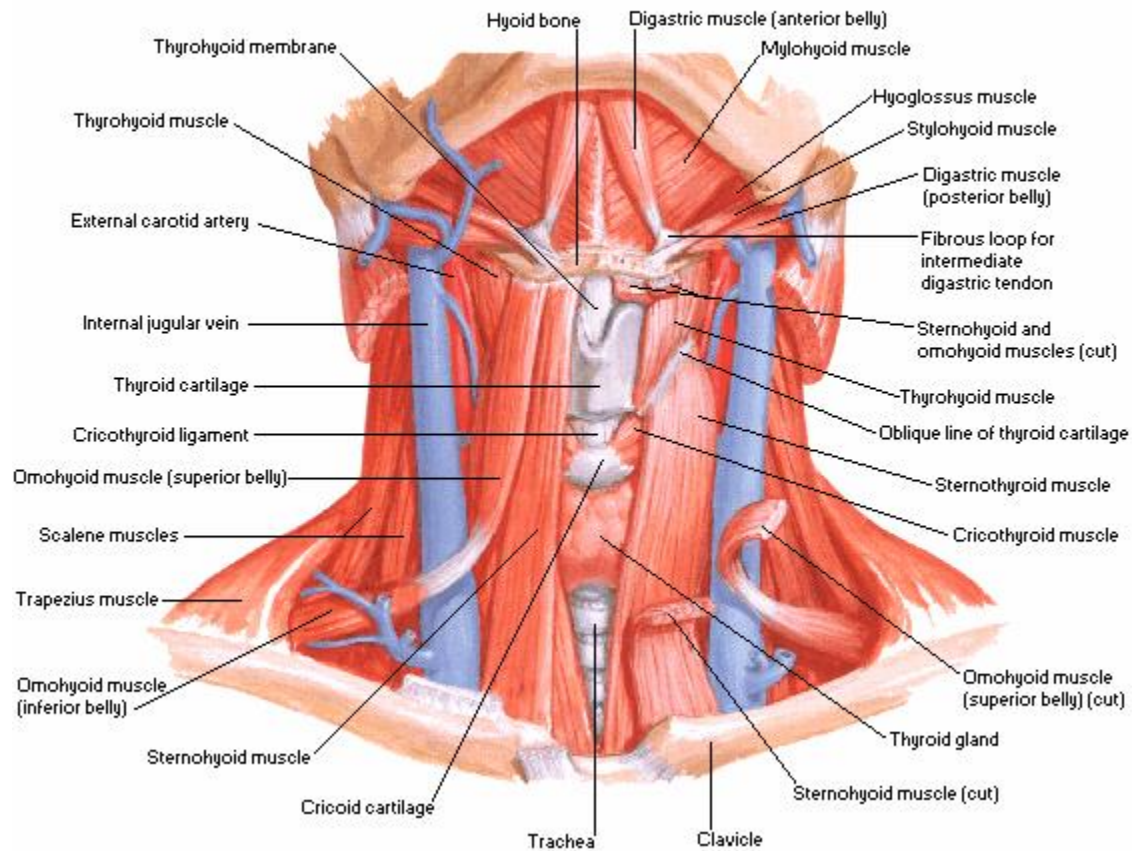


Muscles of Neck

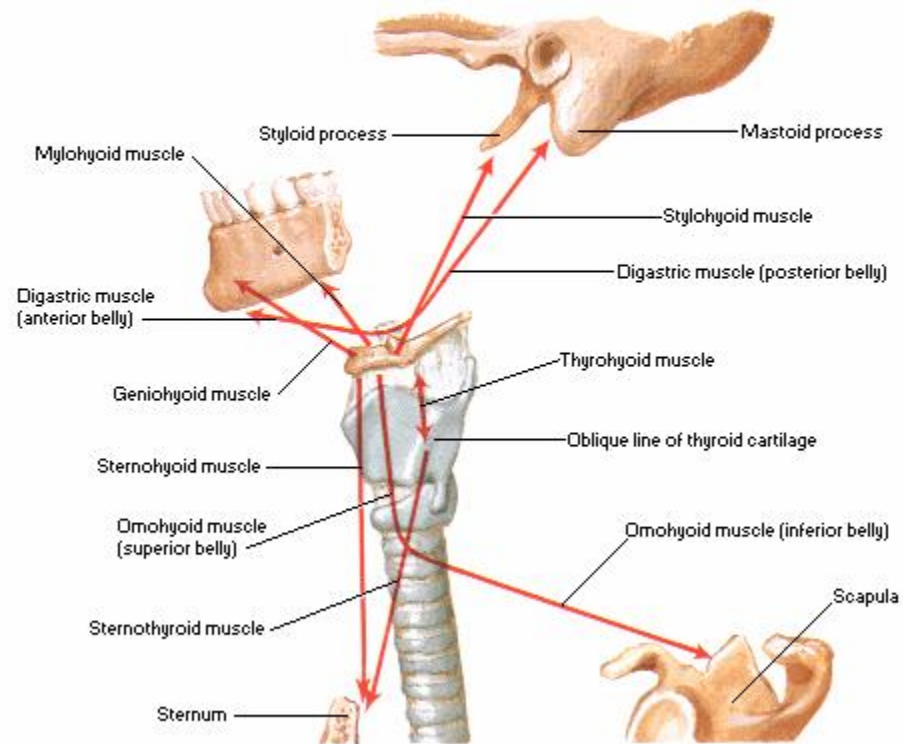
Anterior View



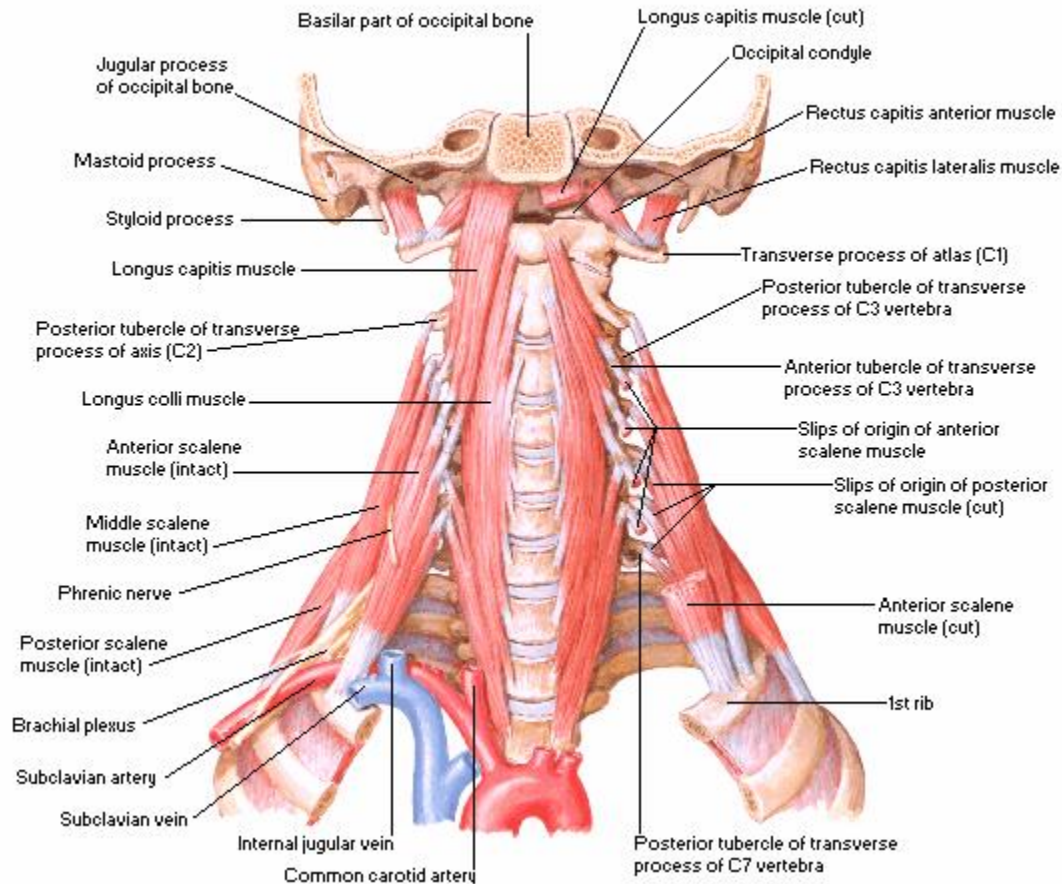
Infrahyoid and Suprahyoid Muscles



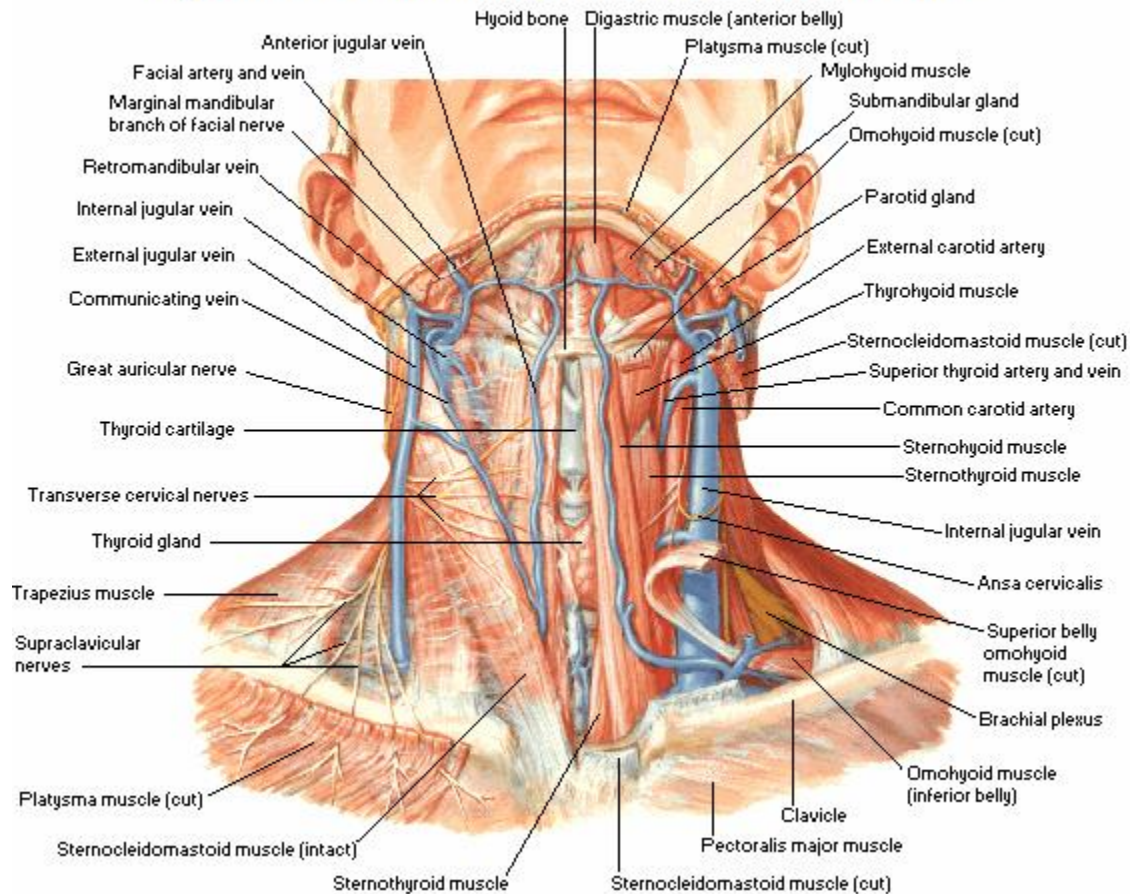
Infrahyoid and Suprahyoid Muscles and their Action Schema



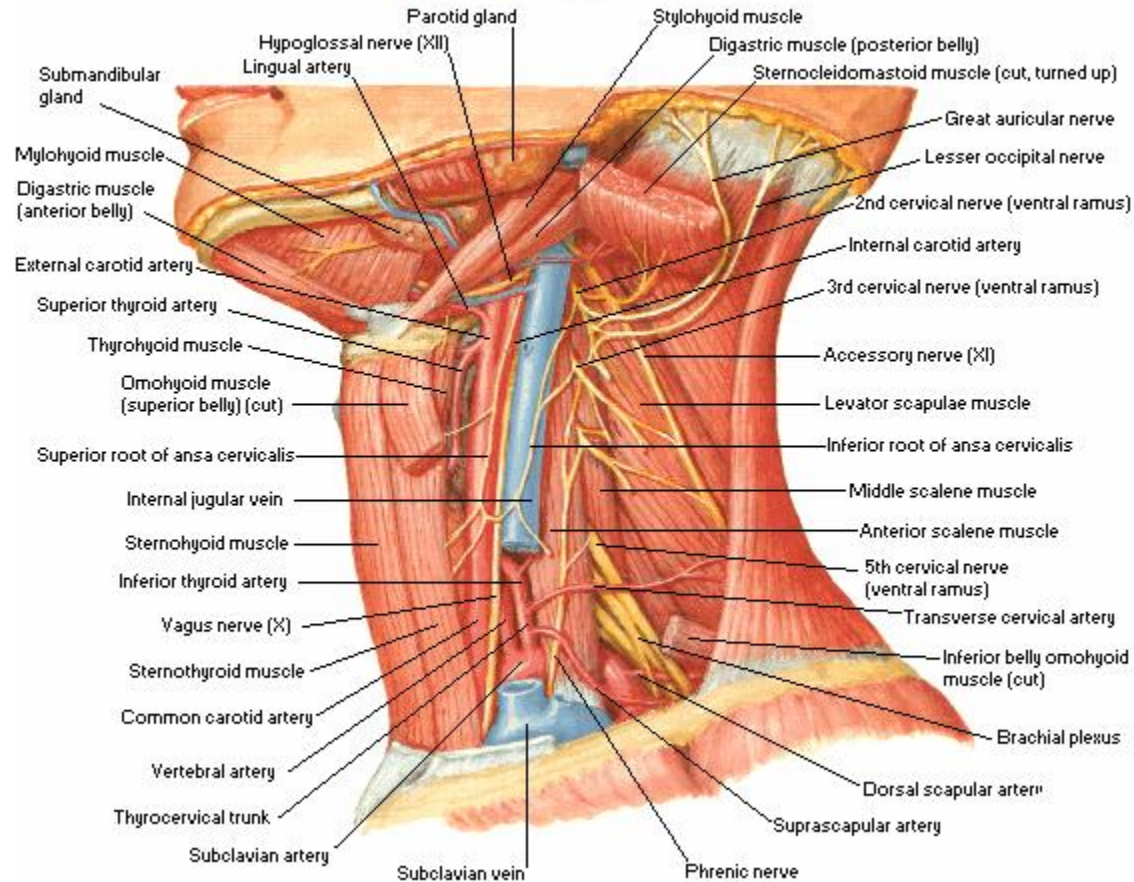
Scalene and Prevertebral Muscles



Superficial Veins and Cutaneous Nerves of Neck

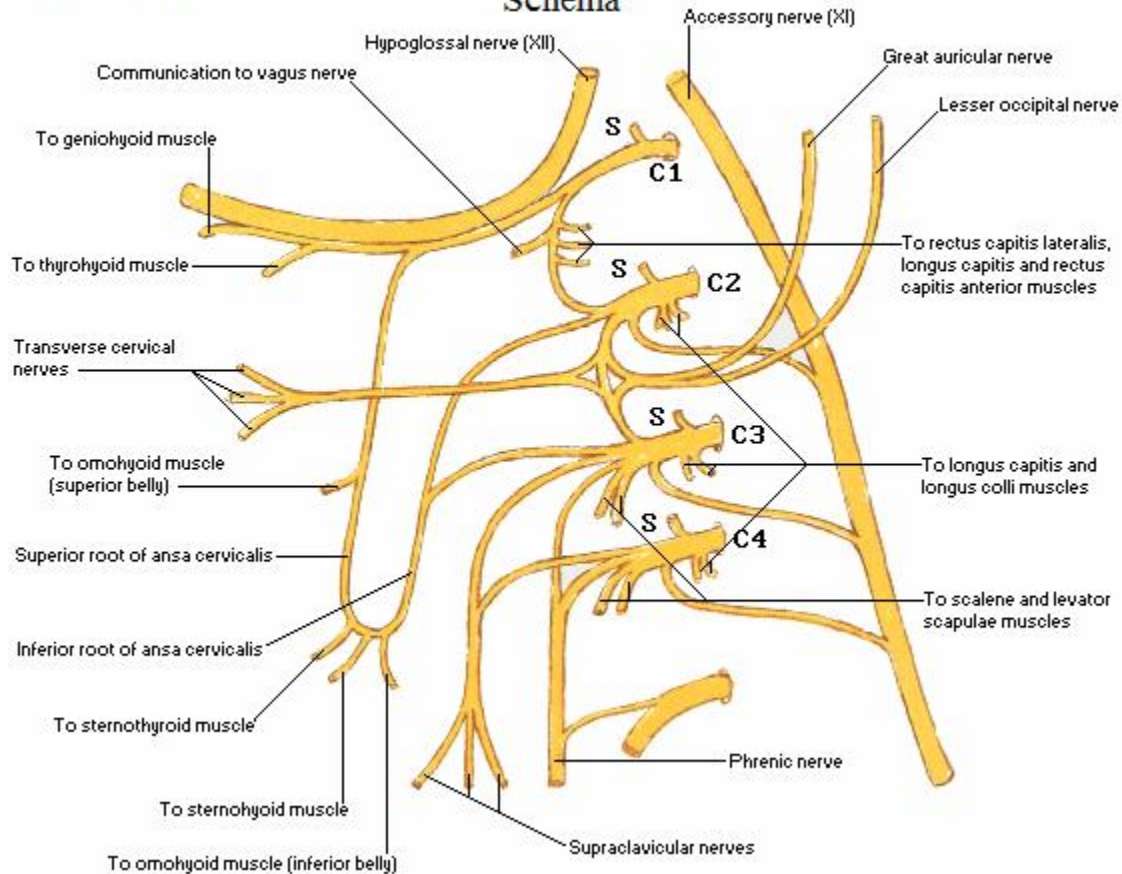


Cervical Plexus in Situ



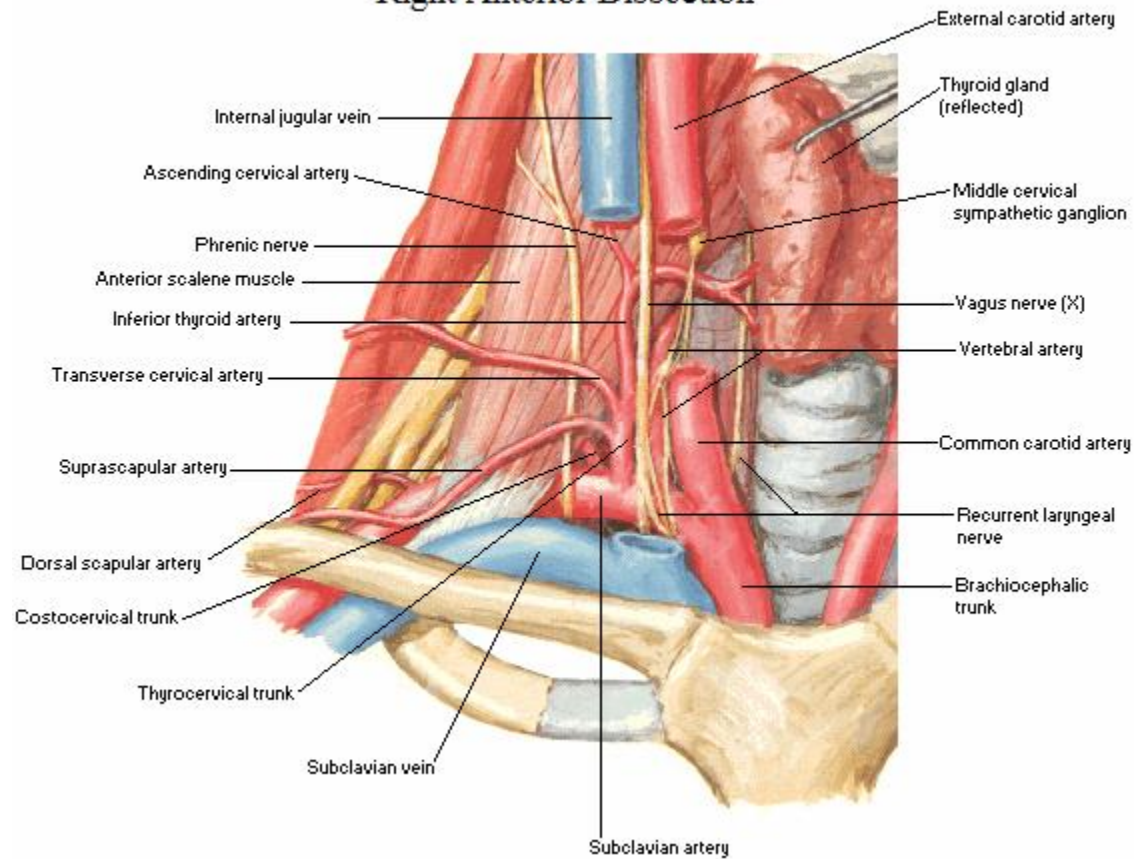
S = gray ramus to superior
sympathetic ganglion

Cervical Plexus Schema



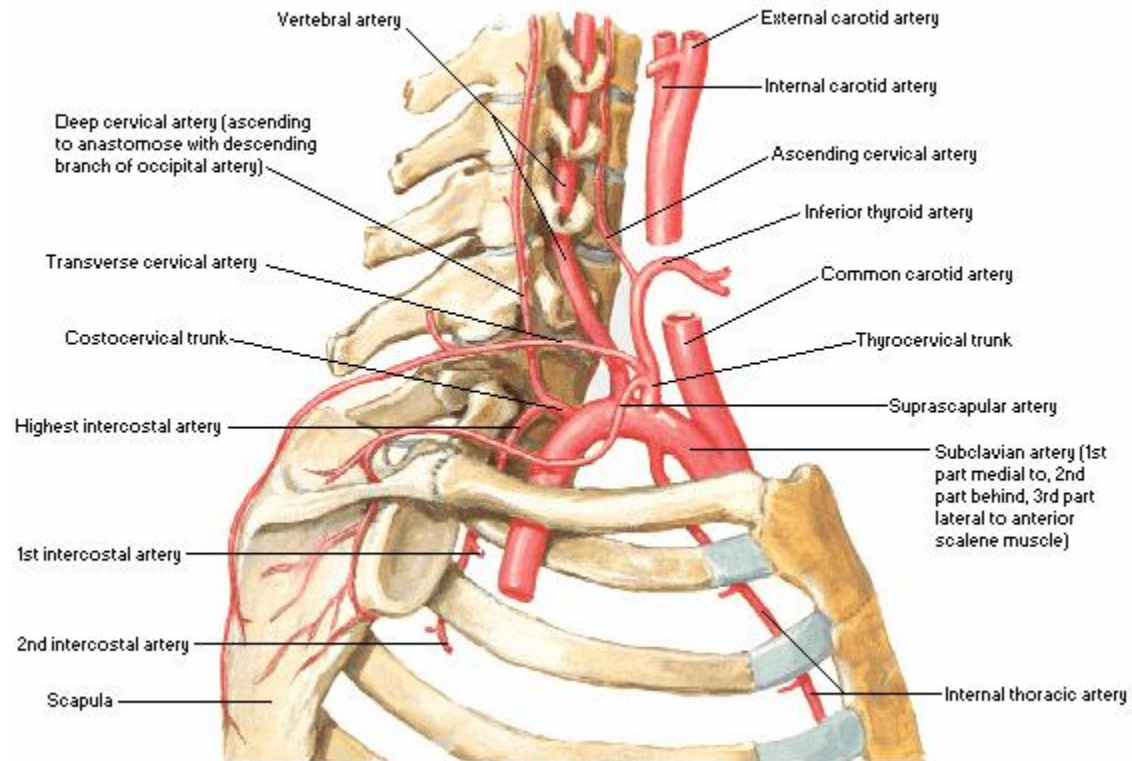
Subclavian Artery

Right Anterior Dissection



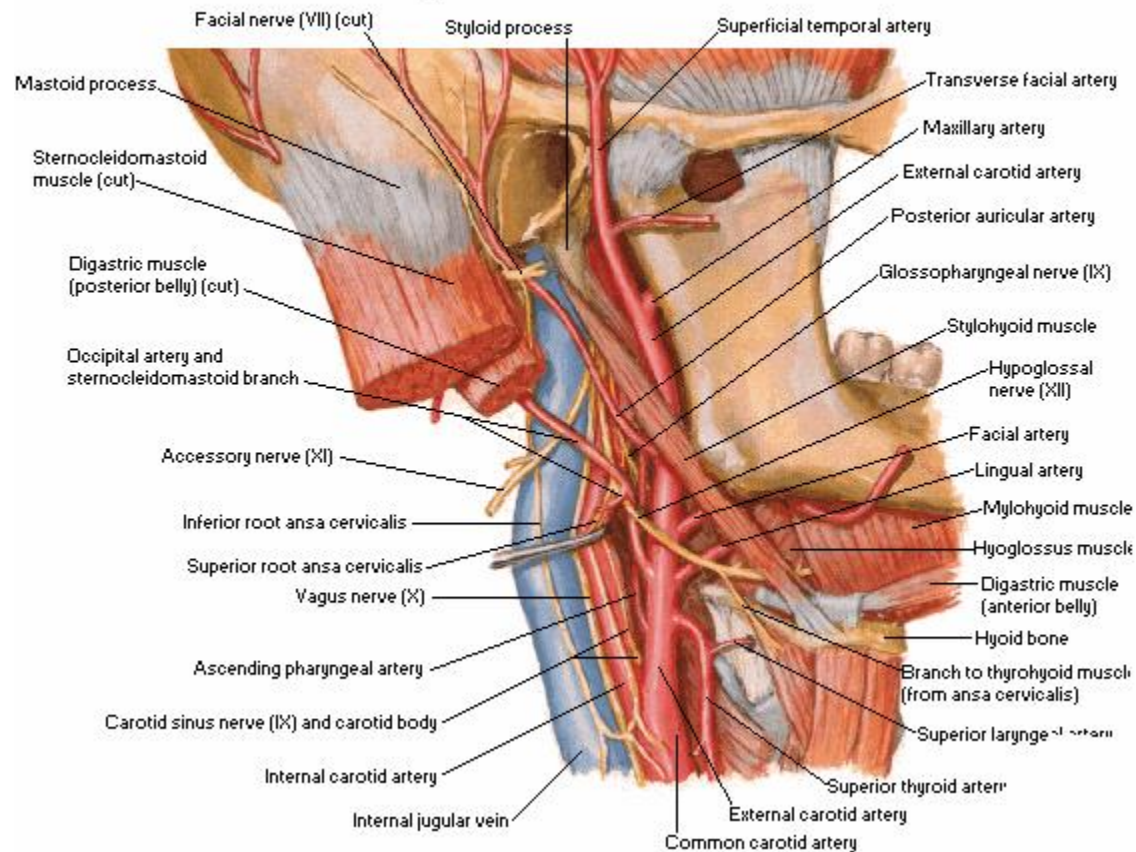
Subclavian Artery

Right Lateral Schematic View

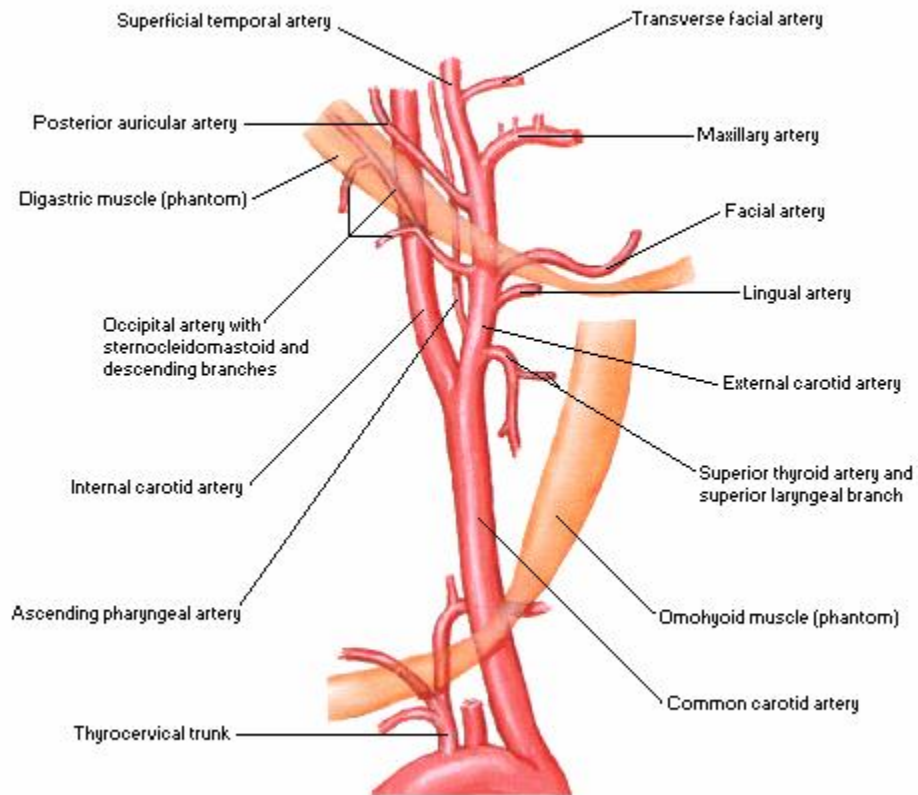


Carotid Arteries - Parotid Fossa

Right Lateral Dissection

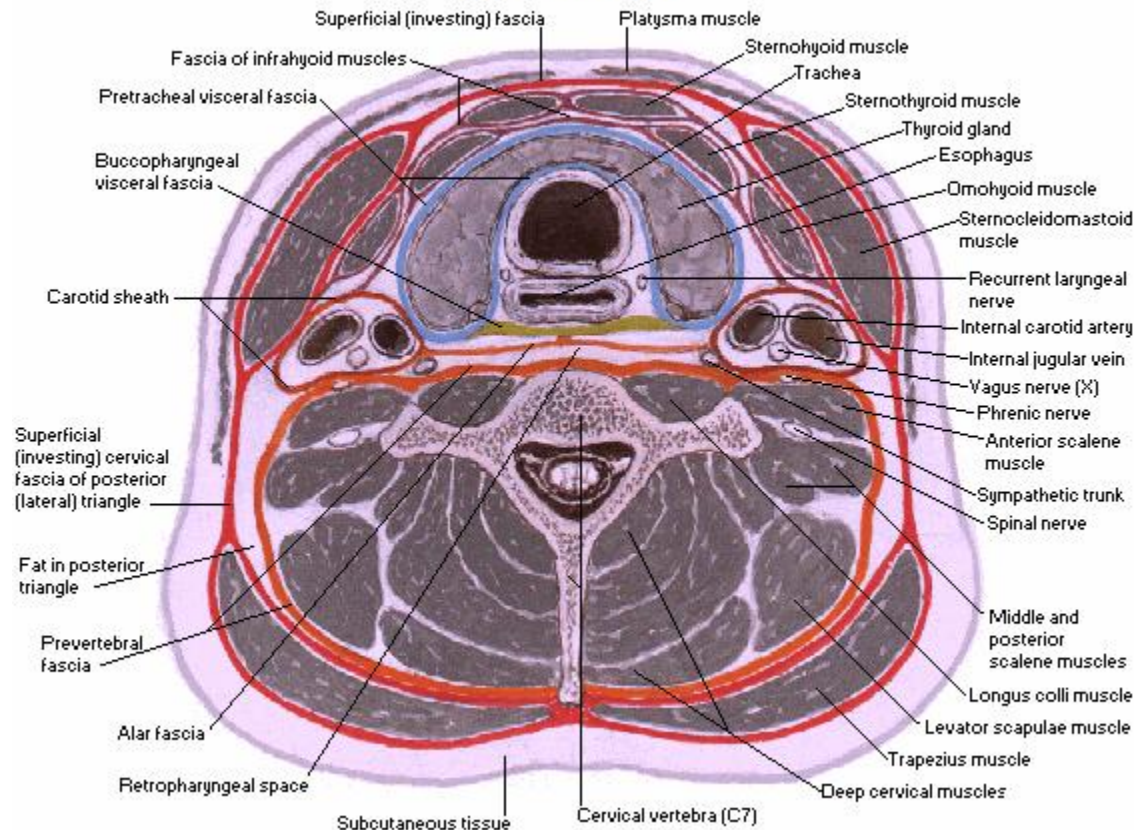


External Carotid Artery and Branches Schema



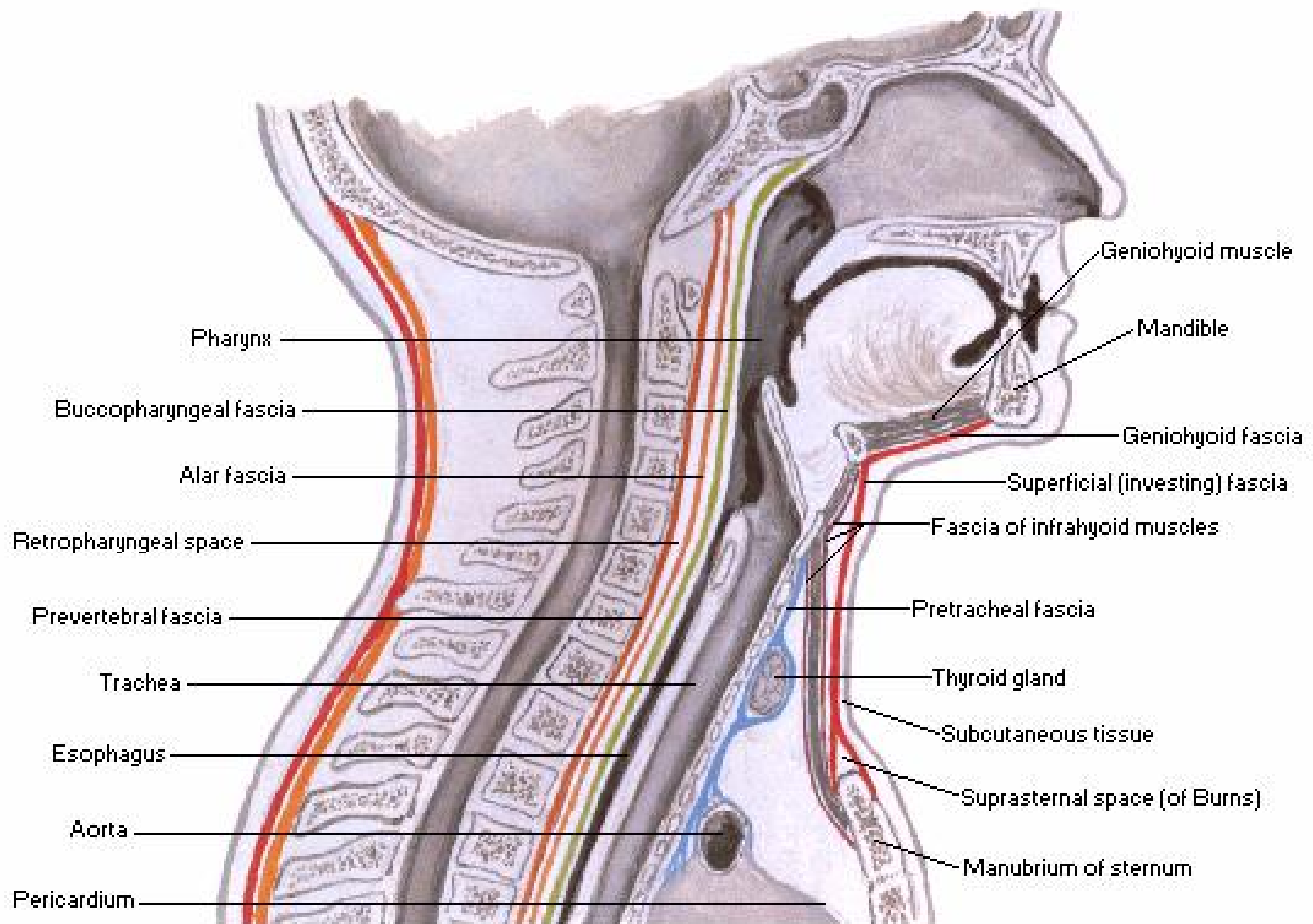
Fascial Layers of Neck

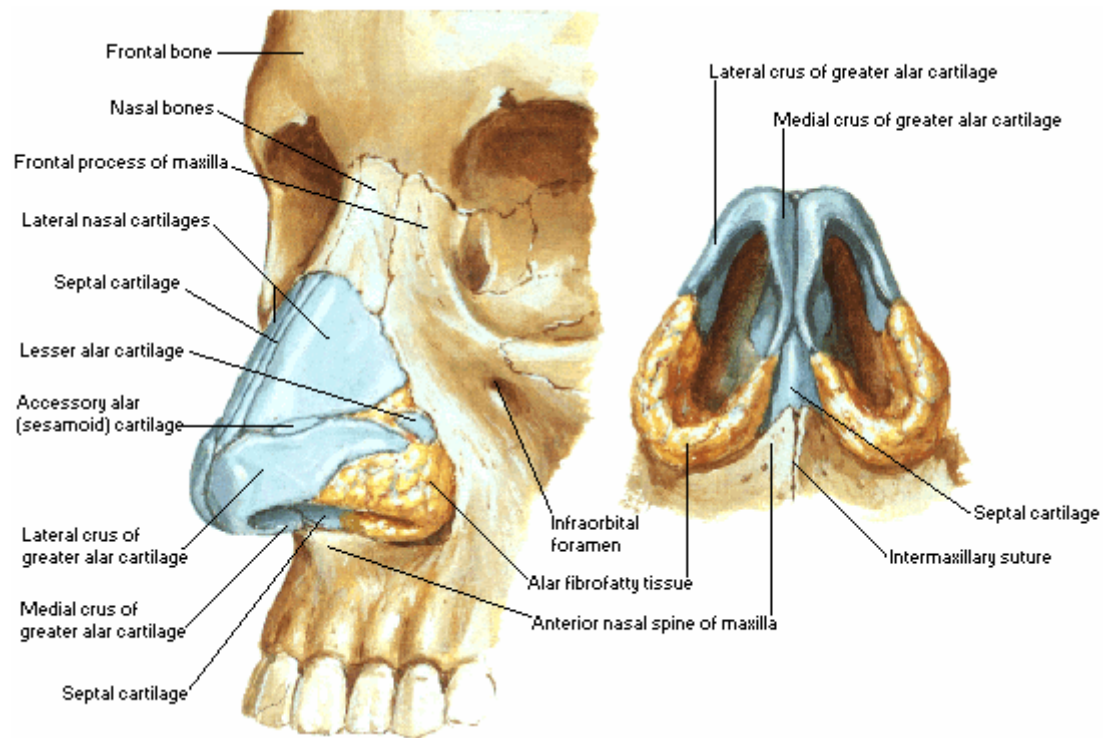
Cross Section



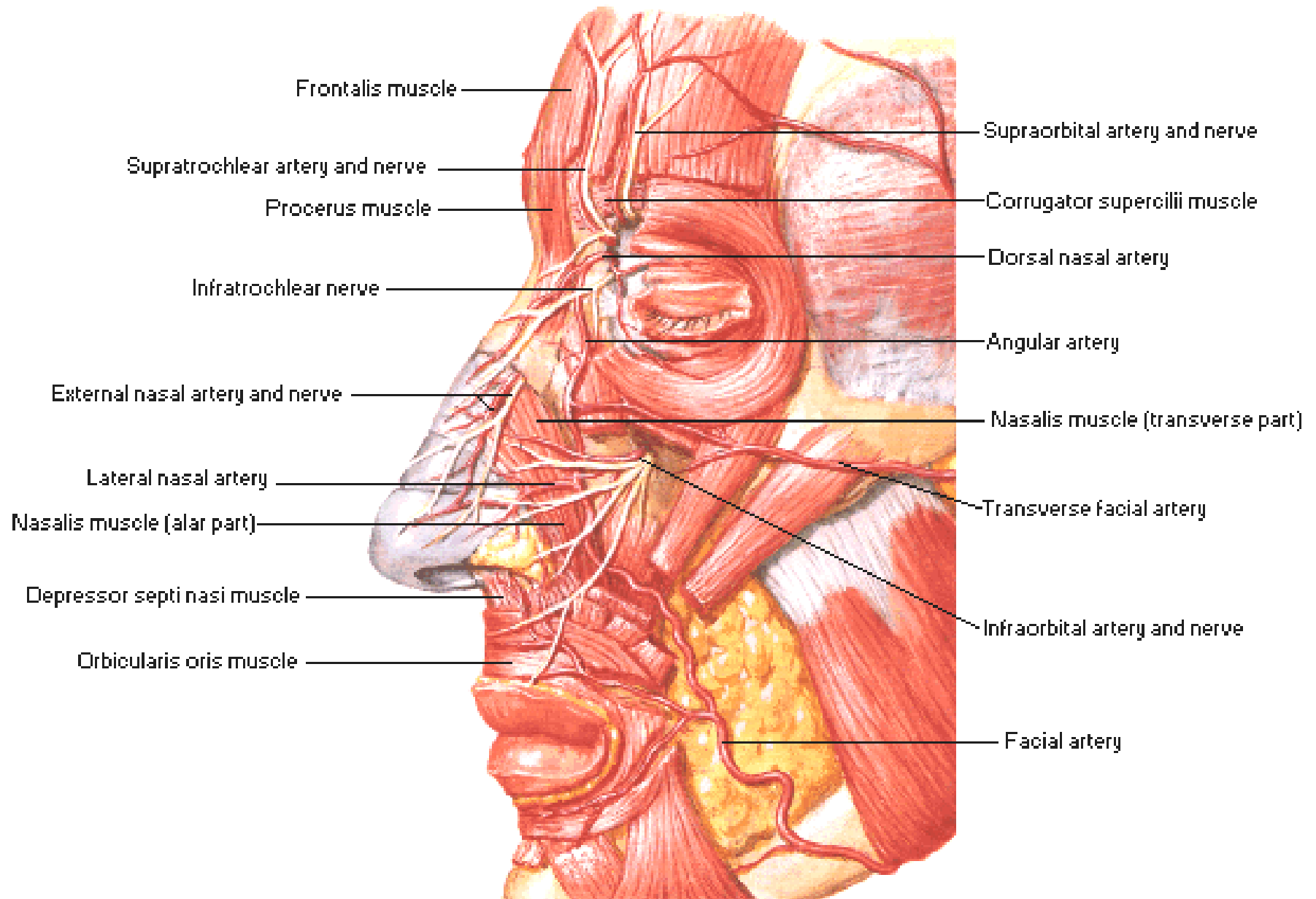
Fascial Layers of Neck

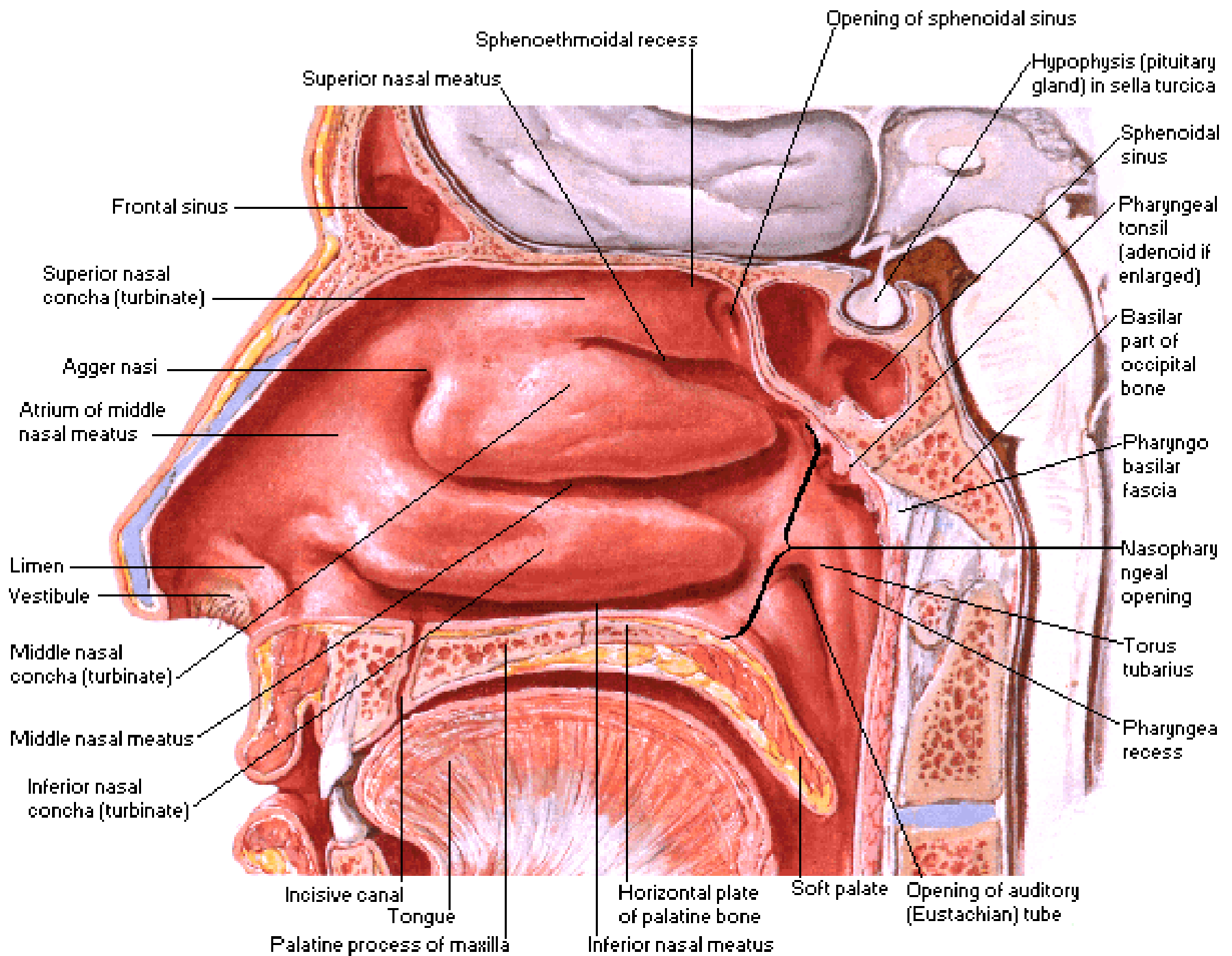
Sagittal Section



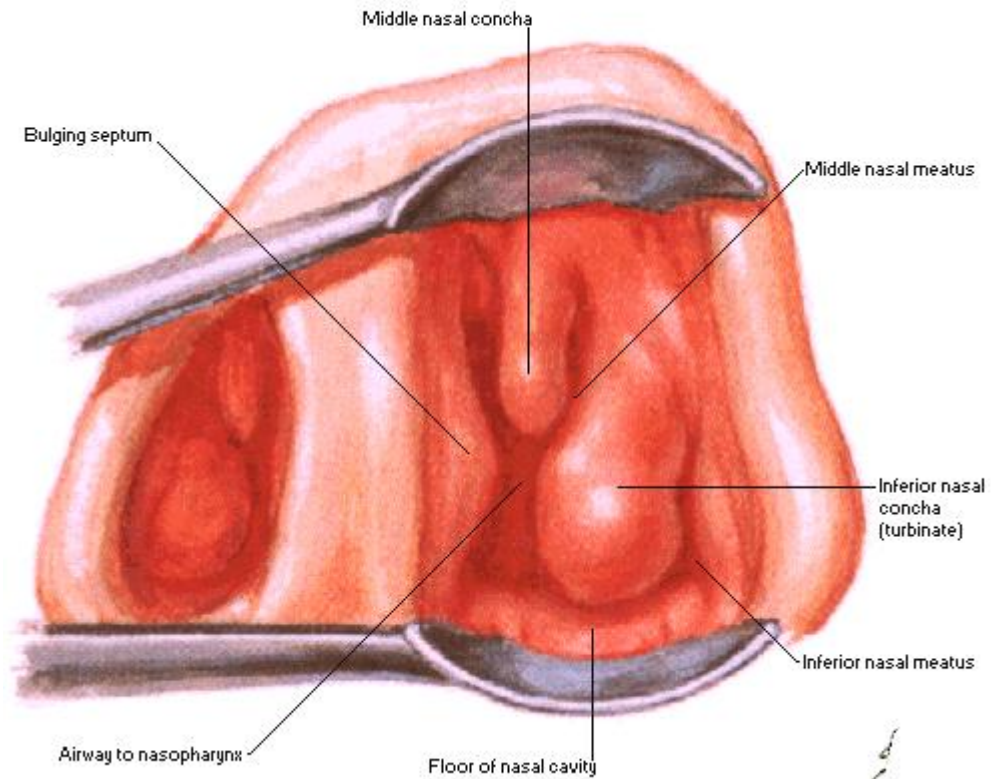


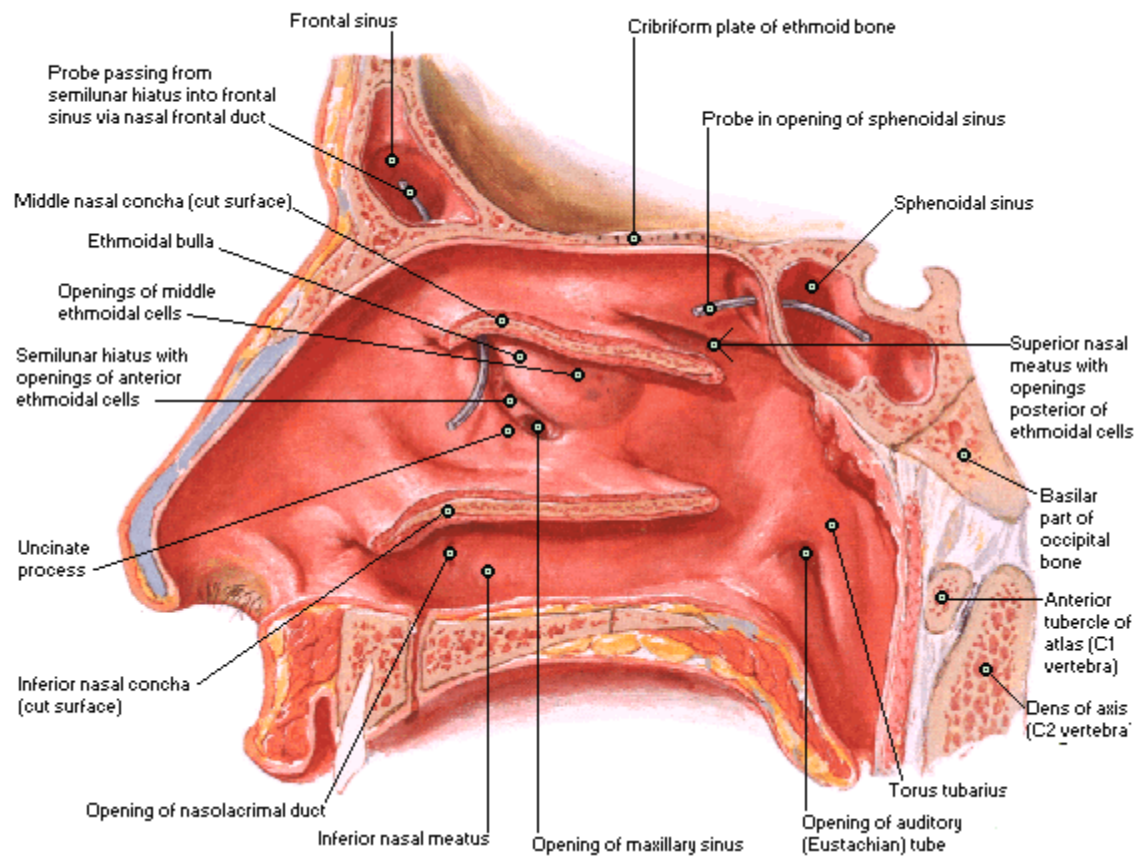
Lateral View

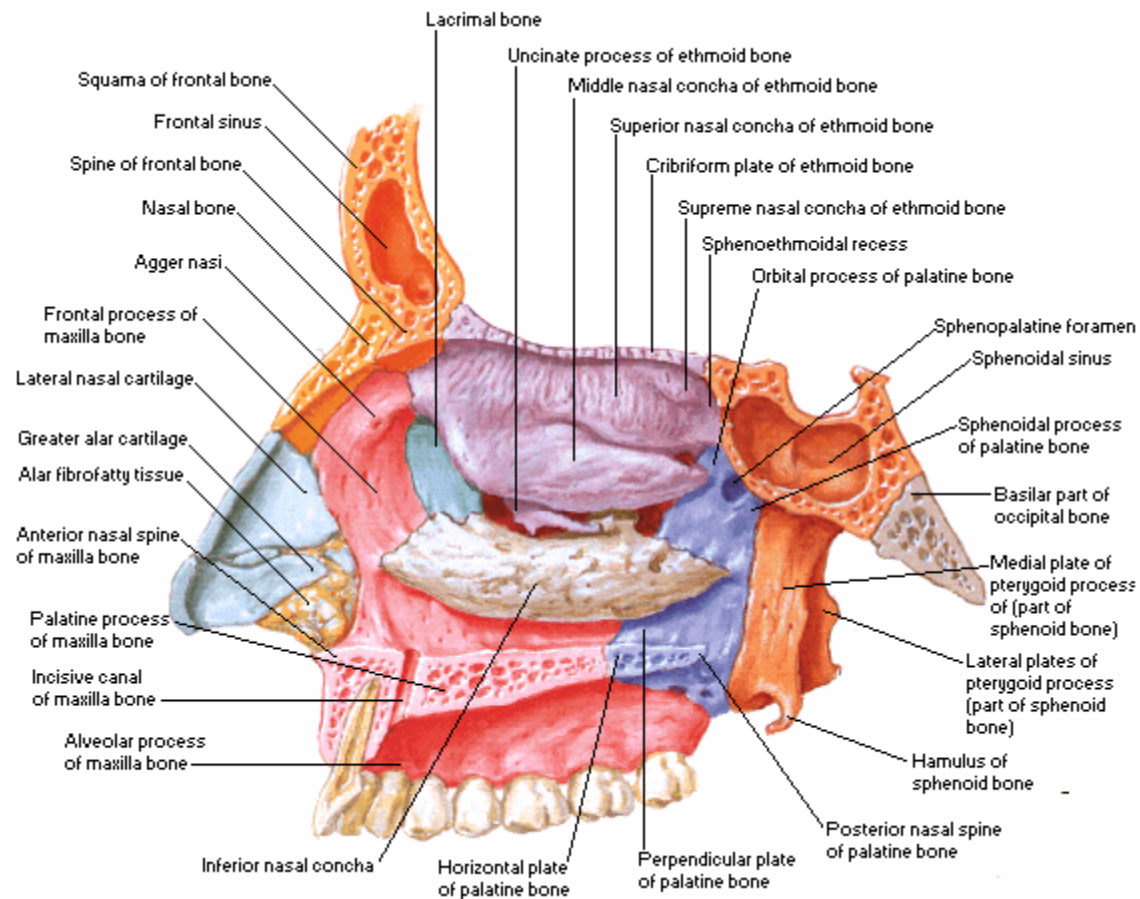




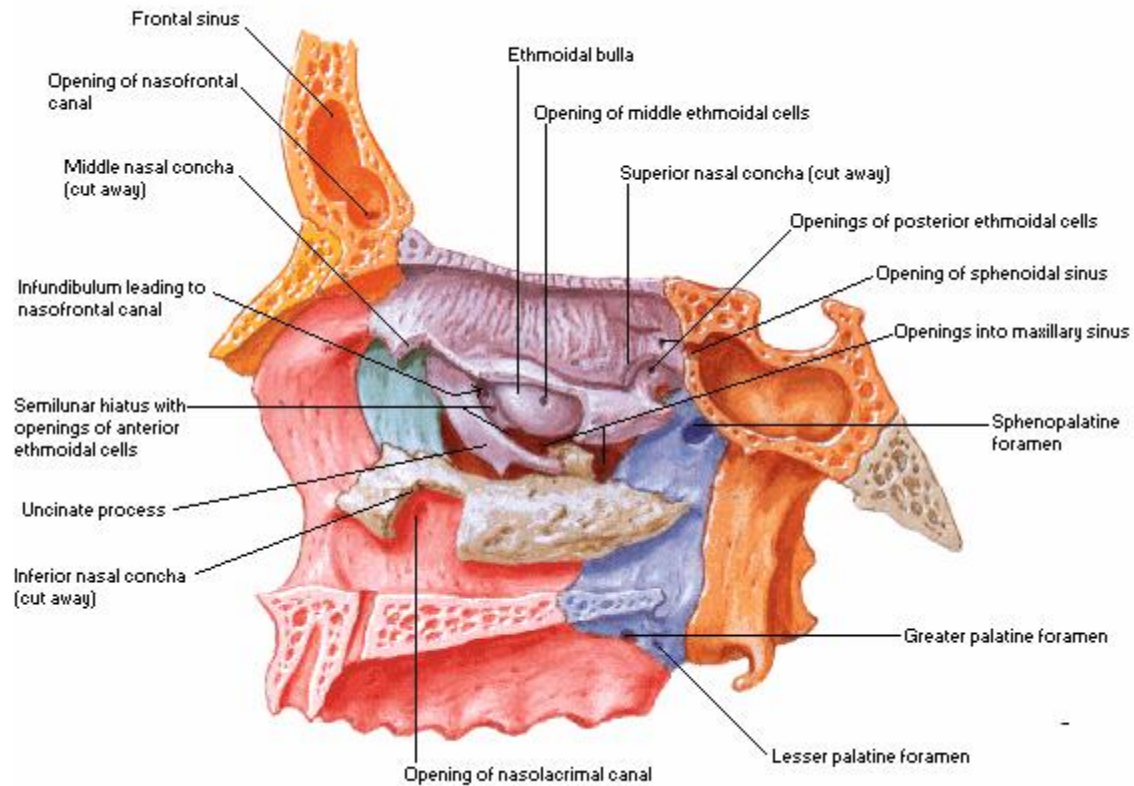
Speculum View

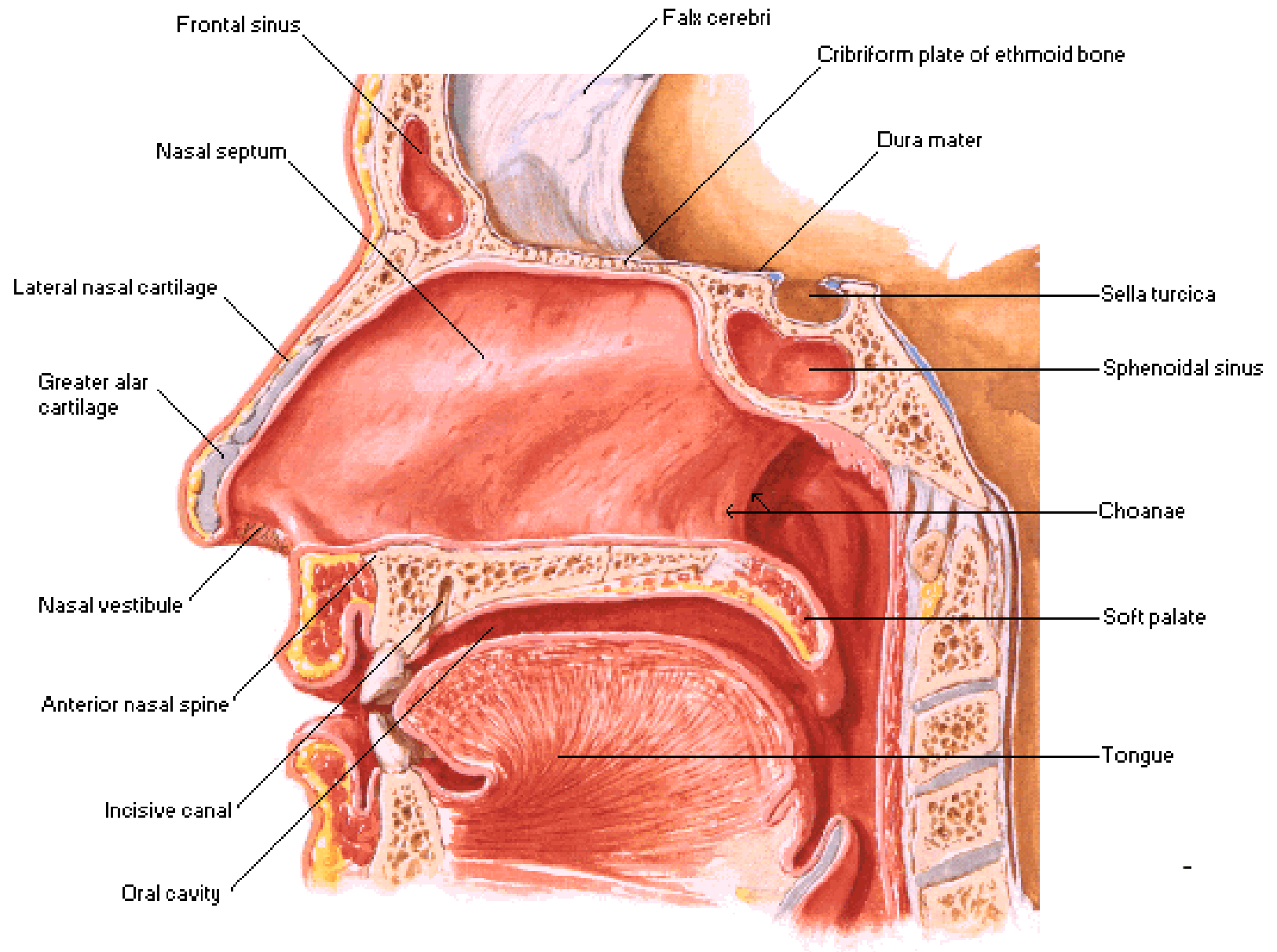




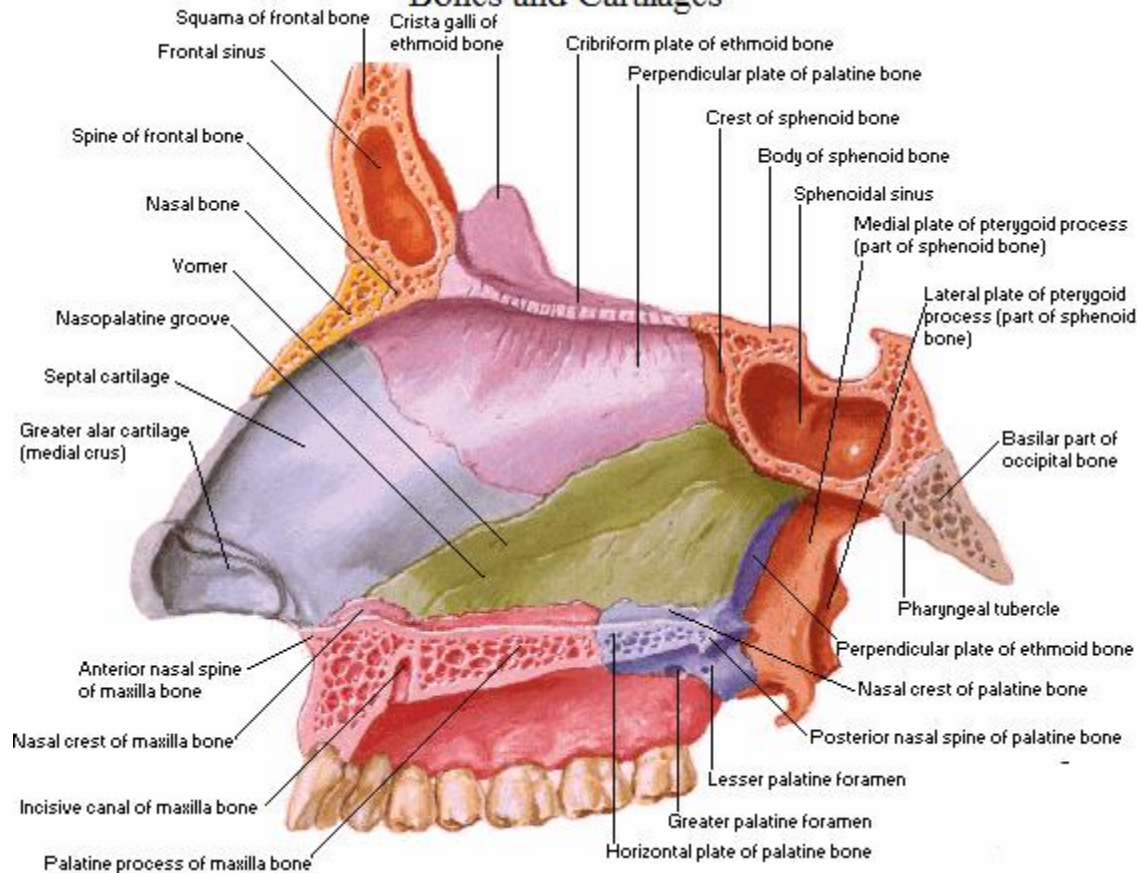


Nasal Conchae Partly Removed

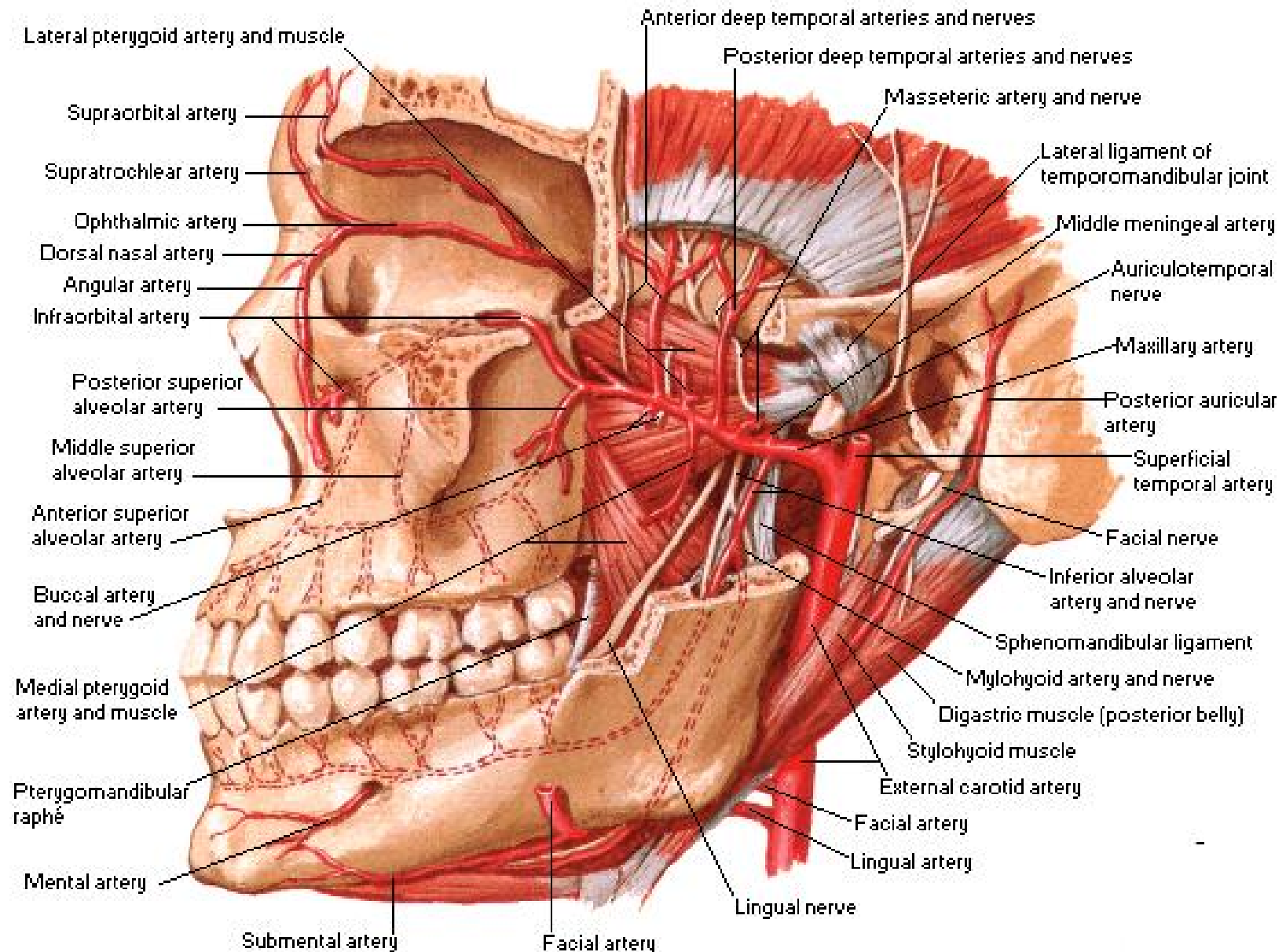




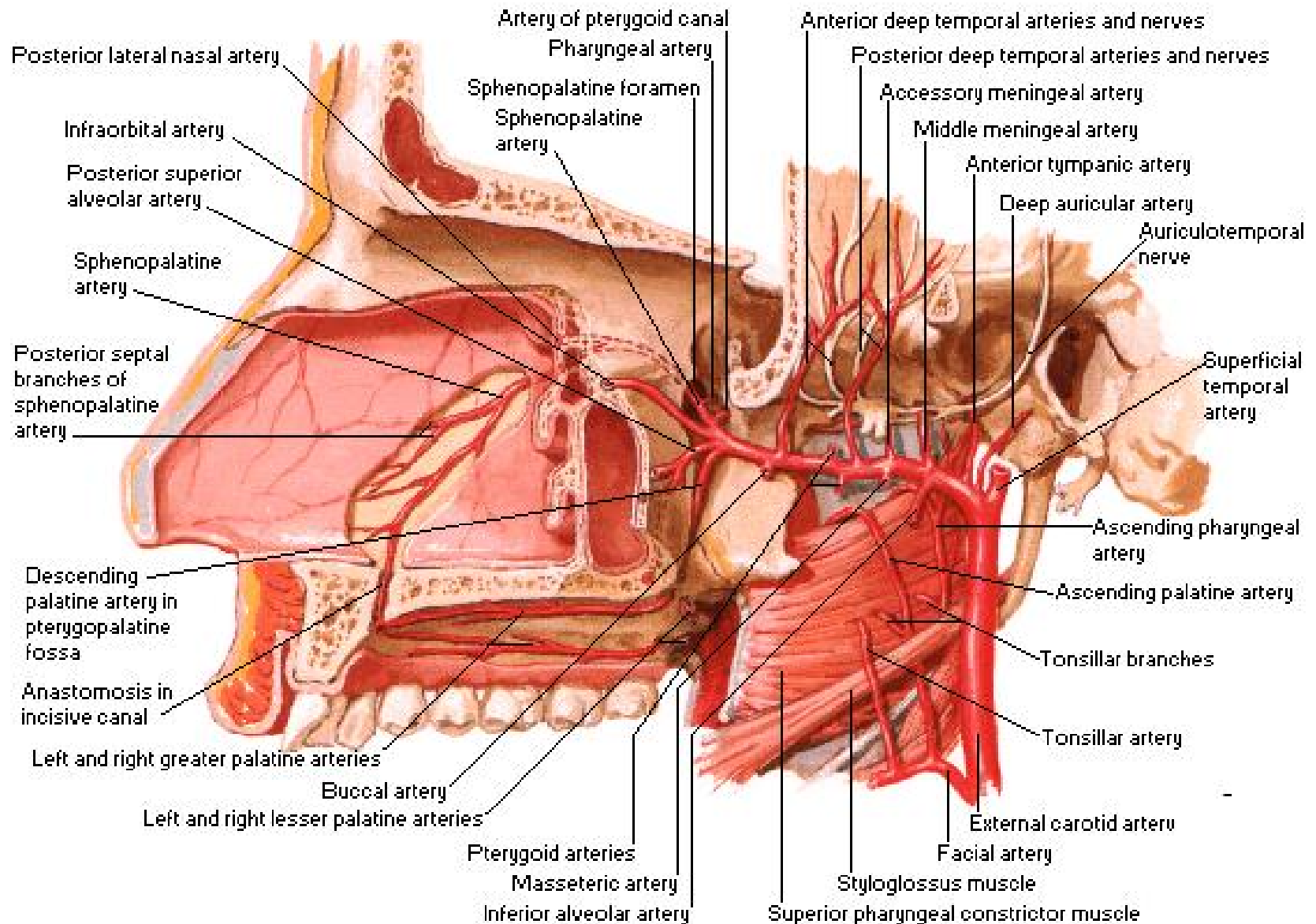
Bones and Cartilages

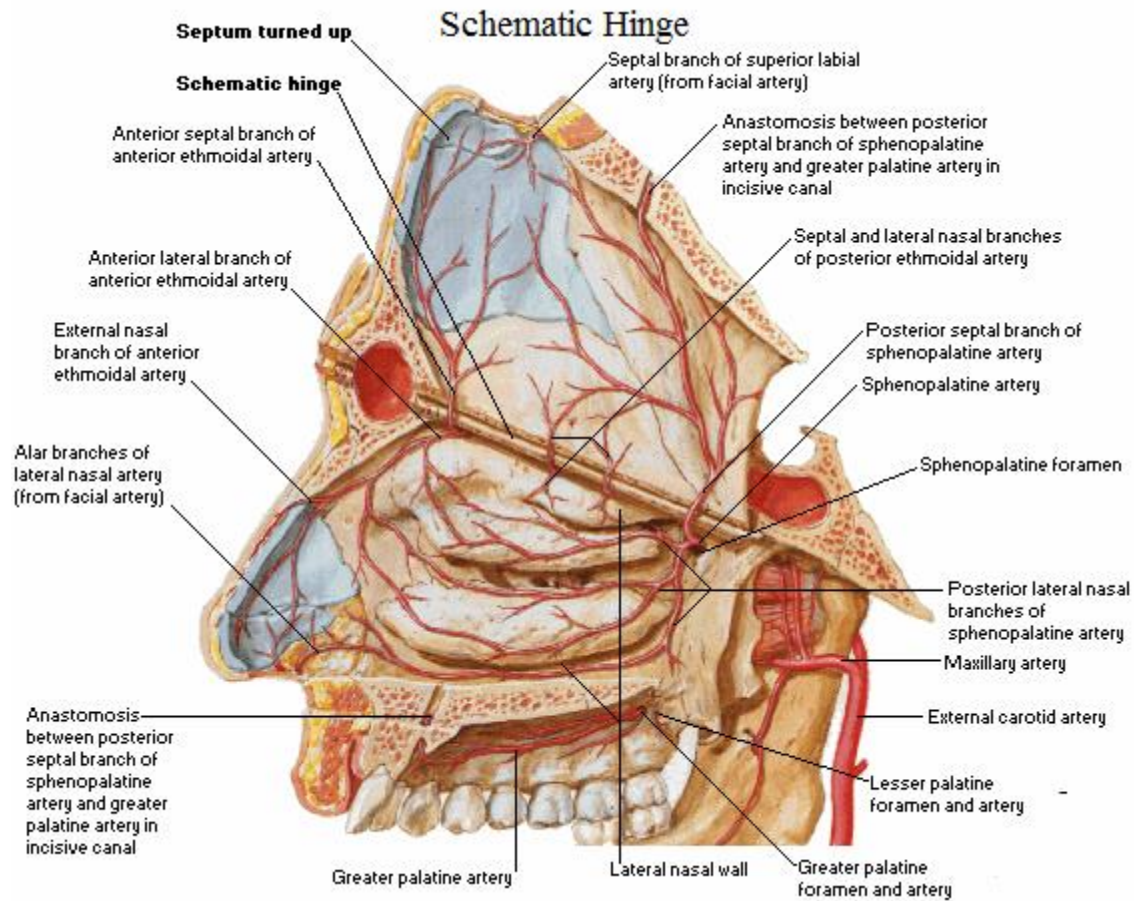


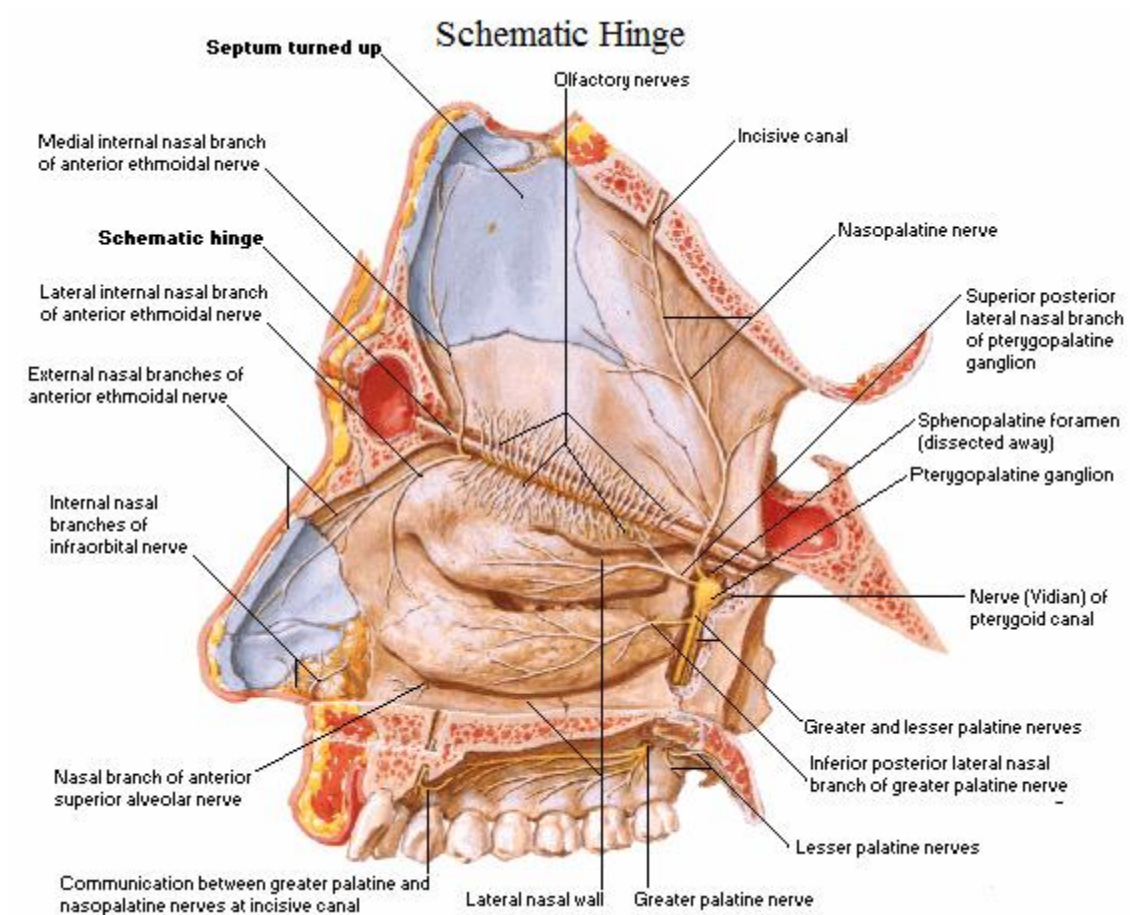
Orbitomaxillary Distribution



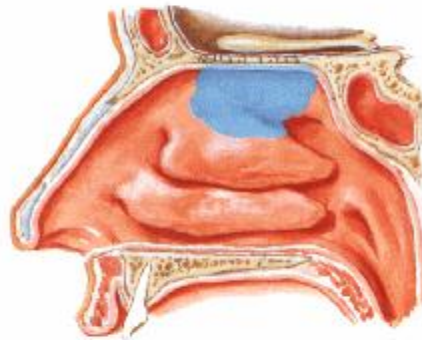
Nasopalatine Distribution



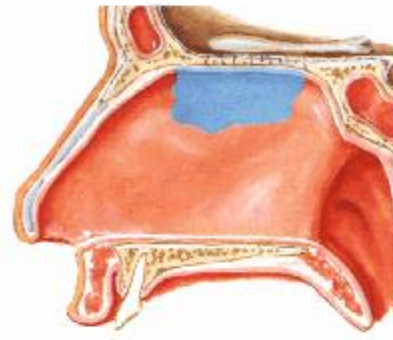




Distribution of Olfactory Mucosa



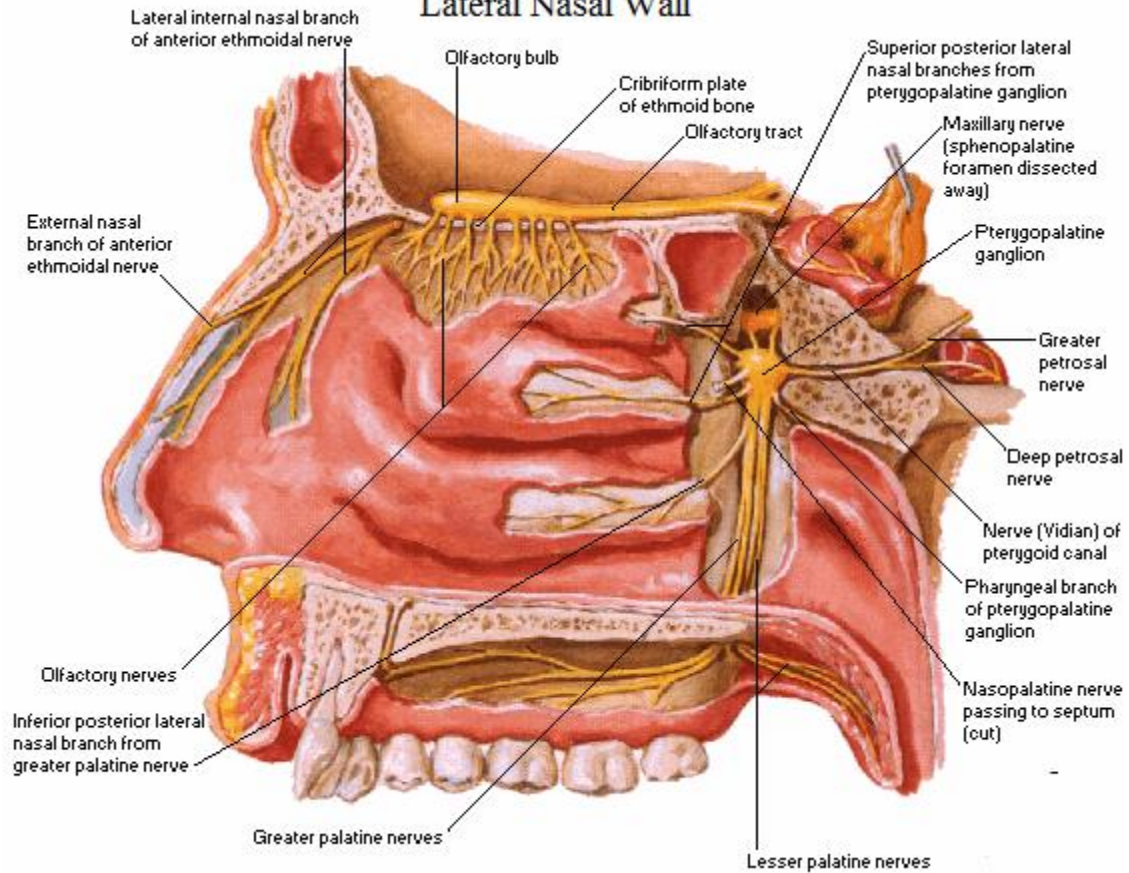
Lateral nasal wall



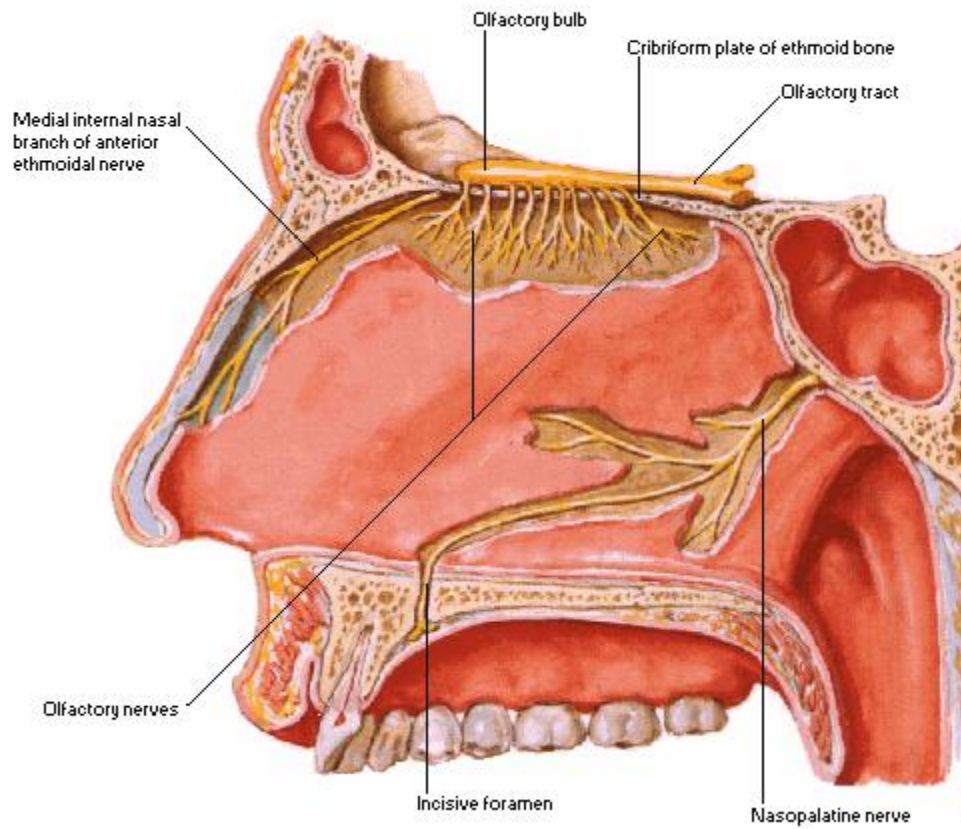
Nasal septum

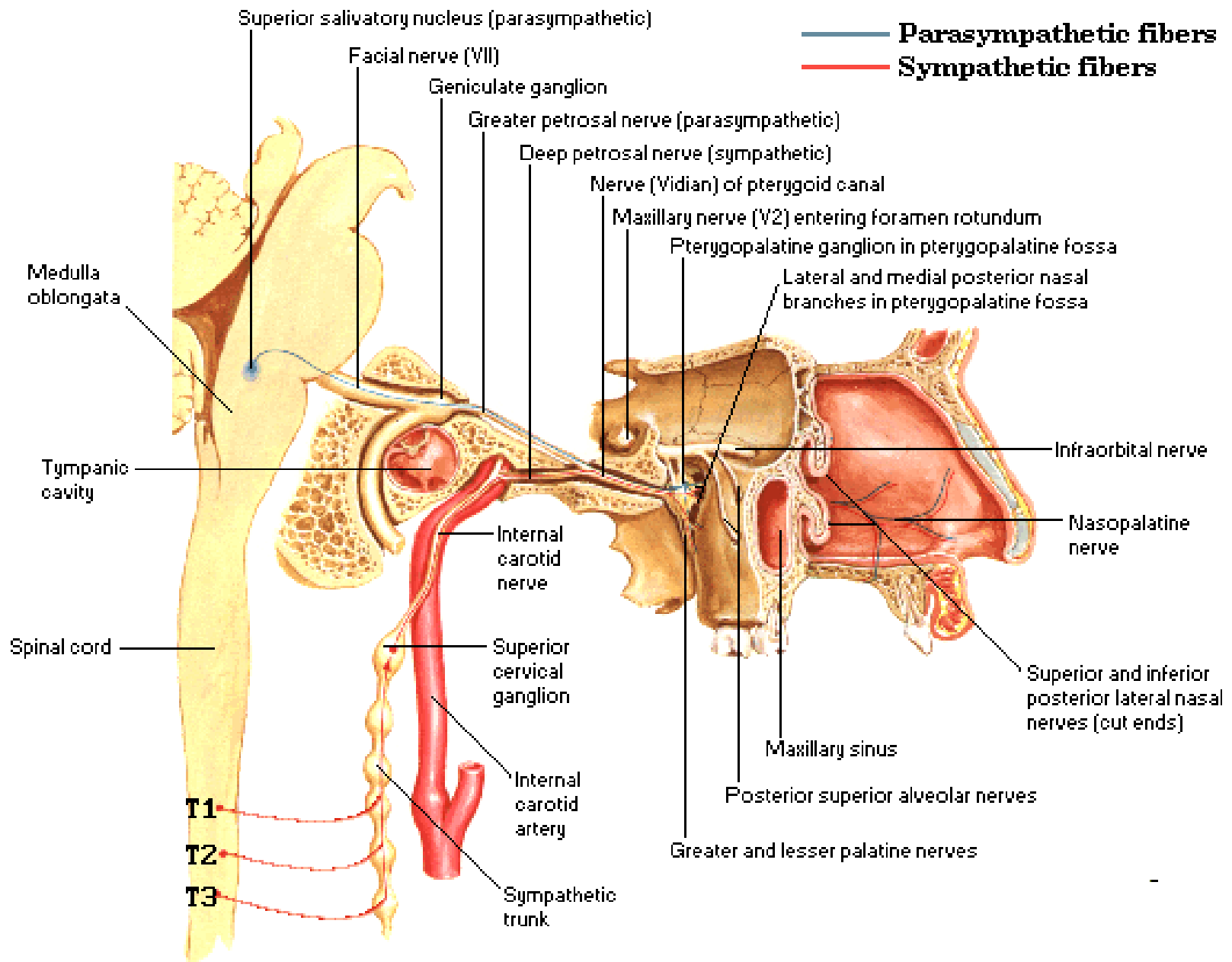
Note: Distribution of olfactory mucosa is shaded blue.

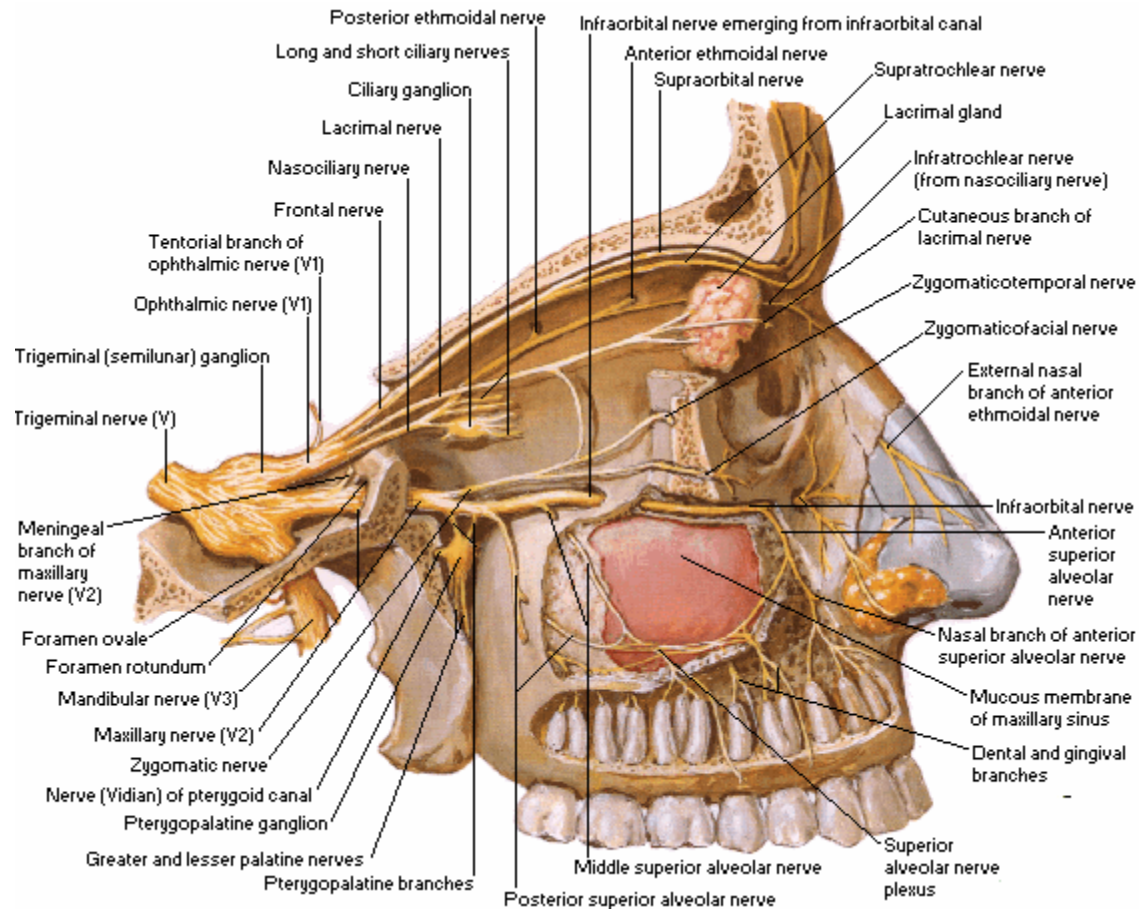
Lateral Nasal Wall



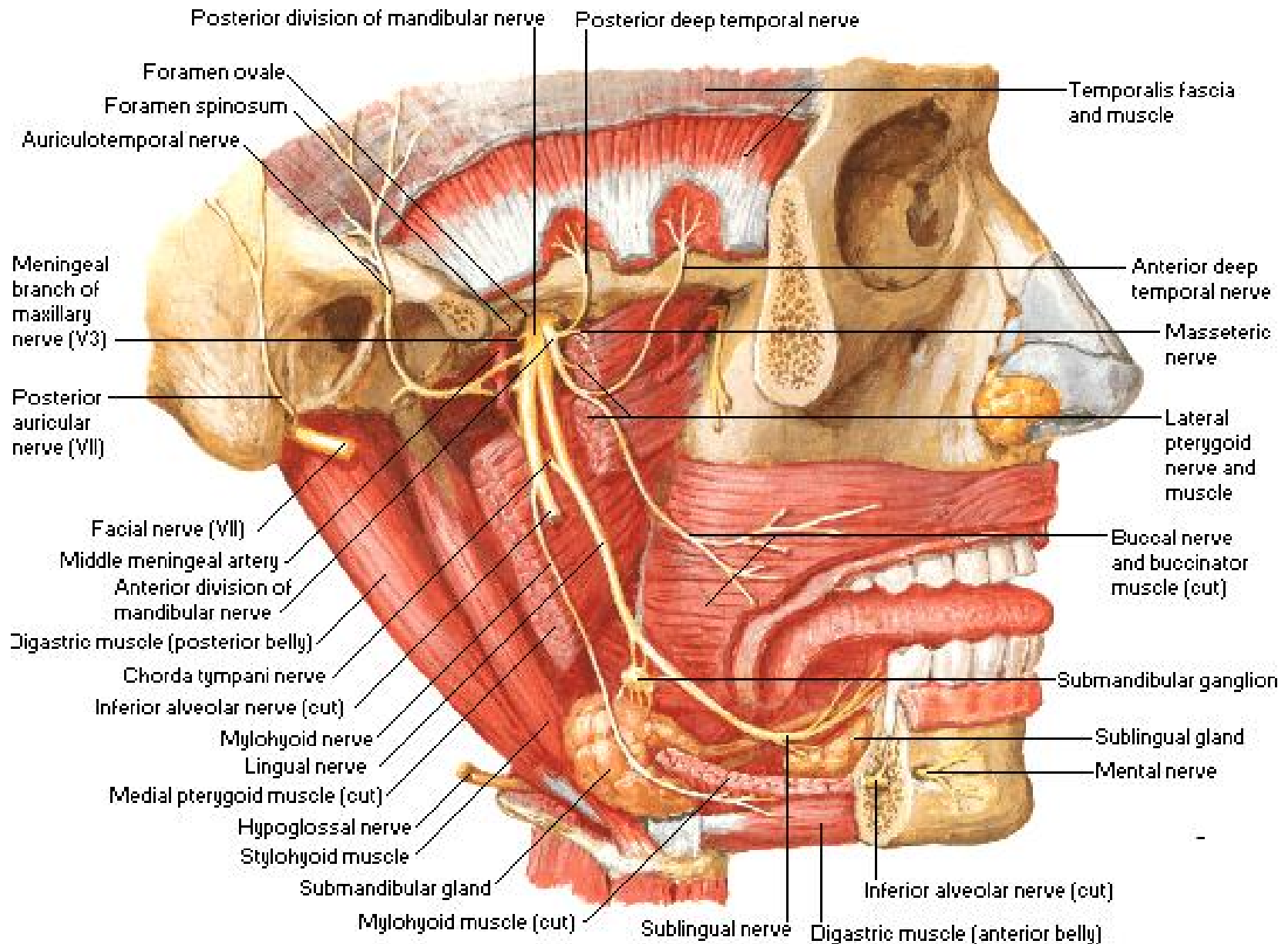
Nasal Septum

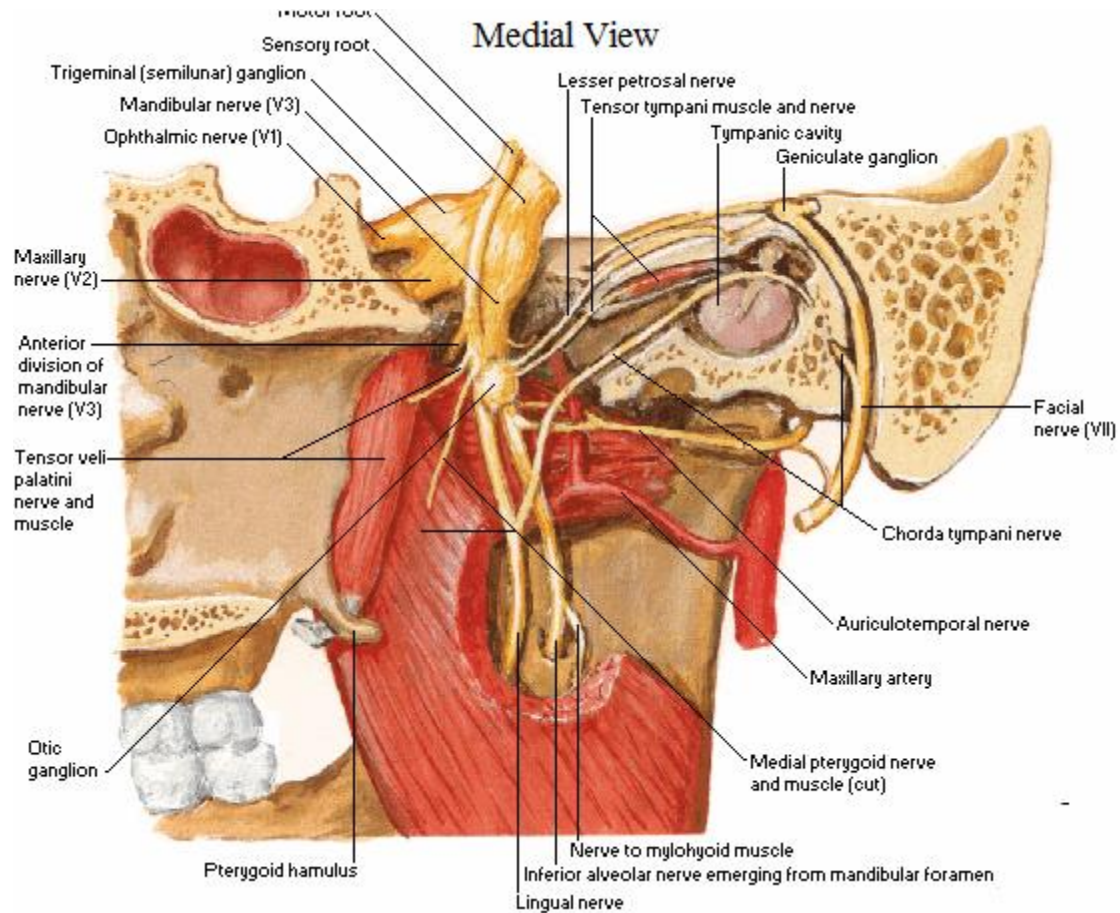




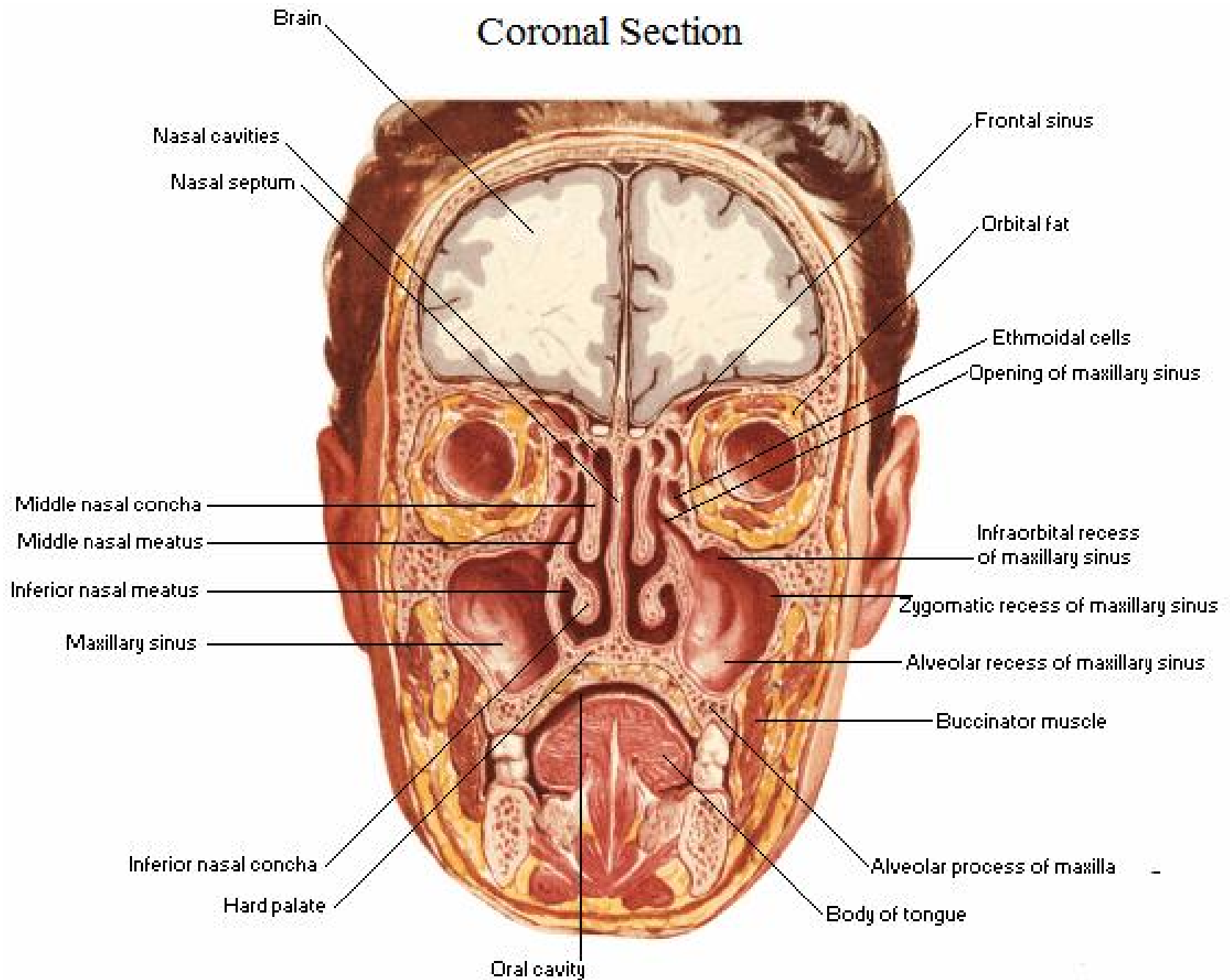


Lateral View

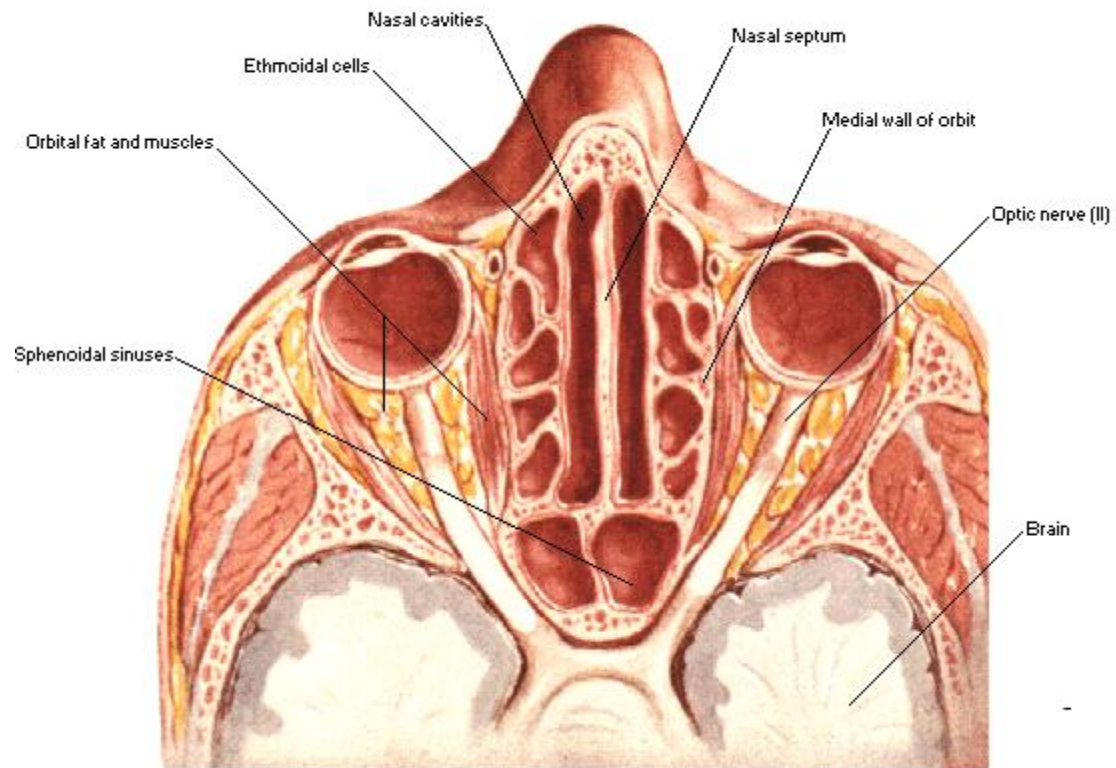




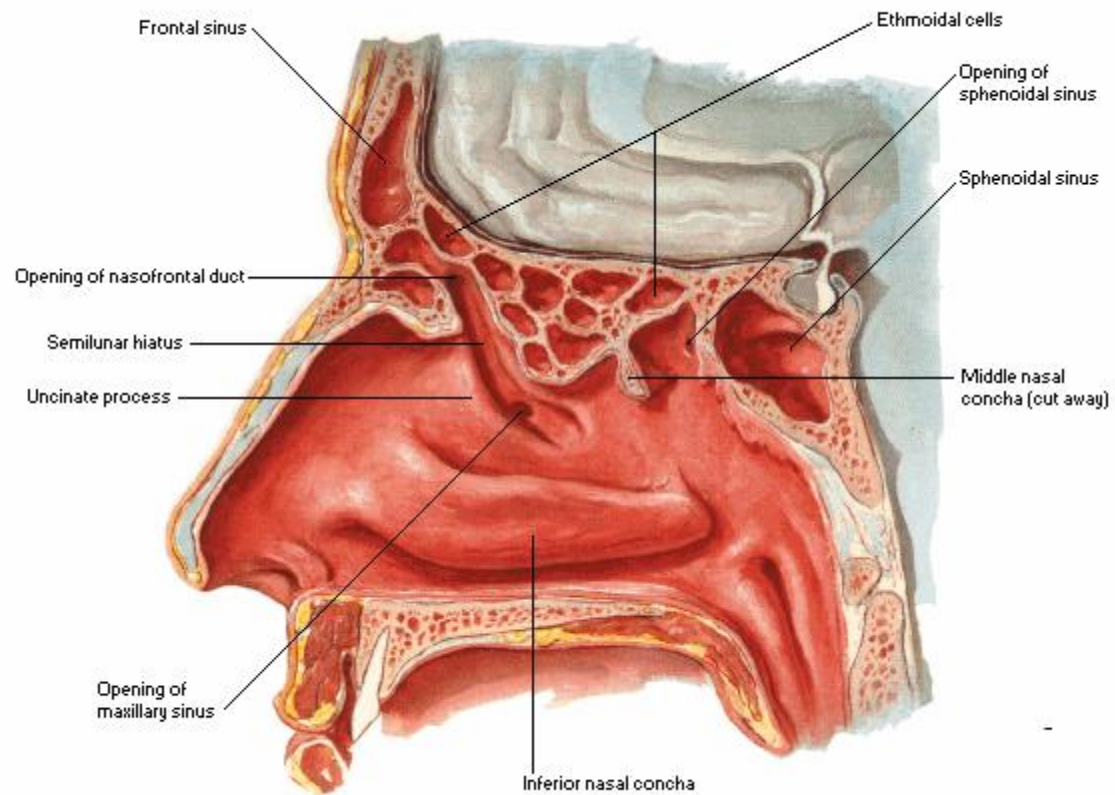
Coronal Section



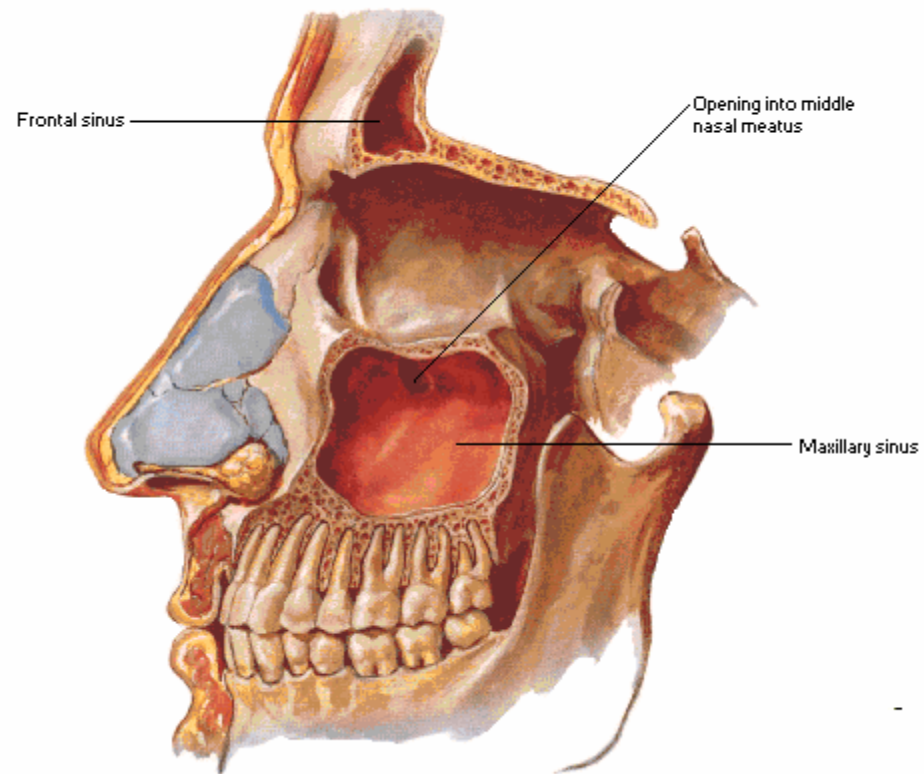
Horizontal Section



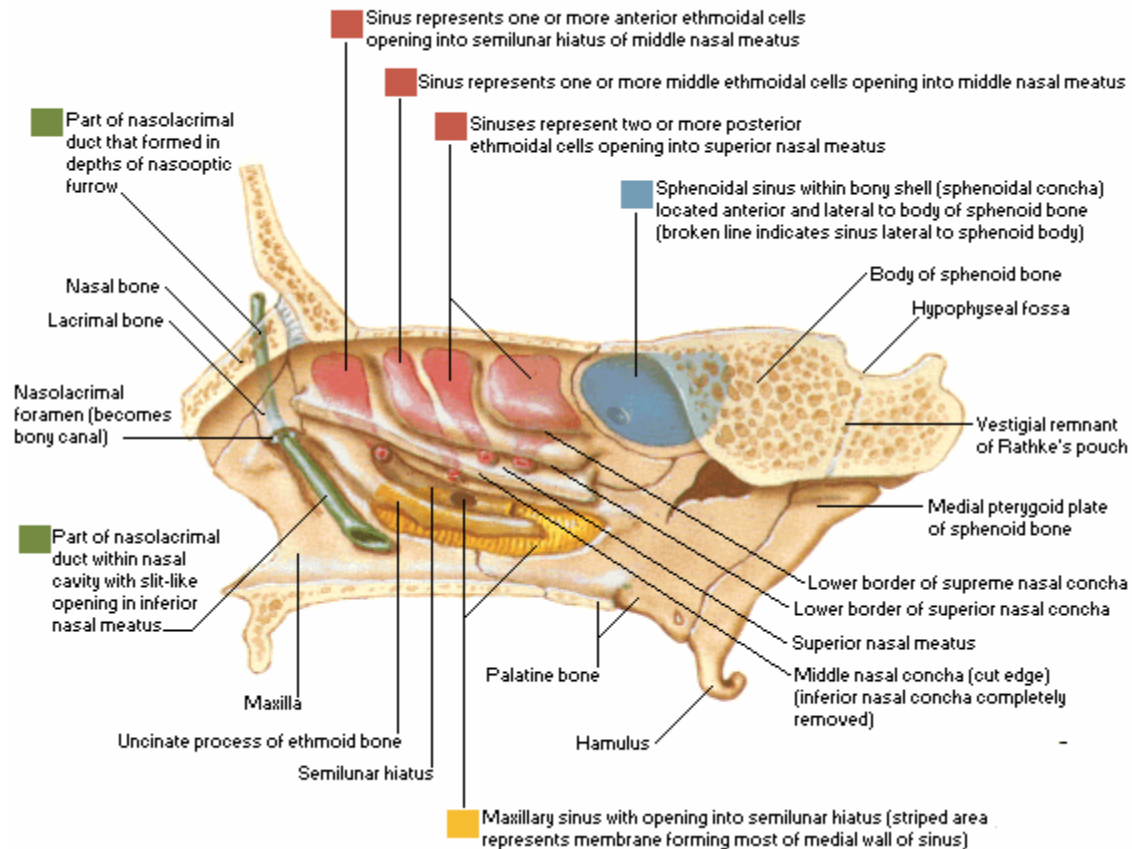
Sagittal Section



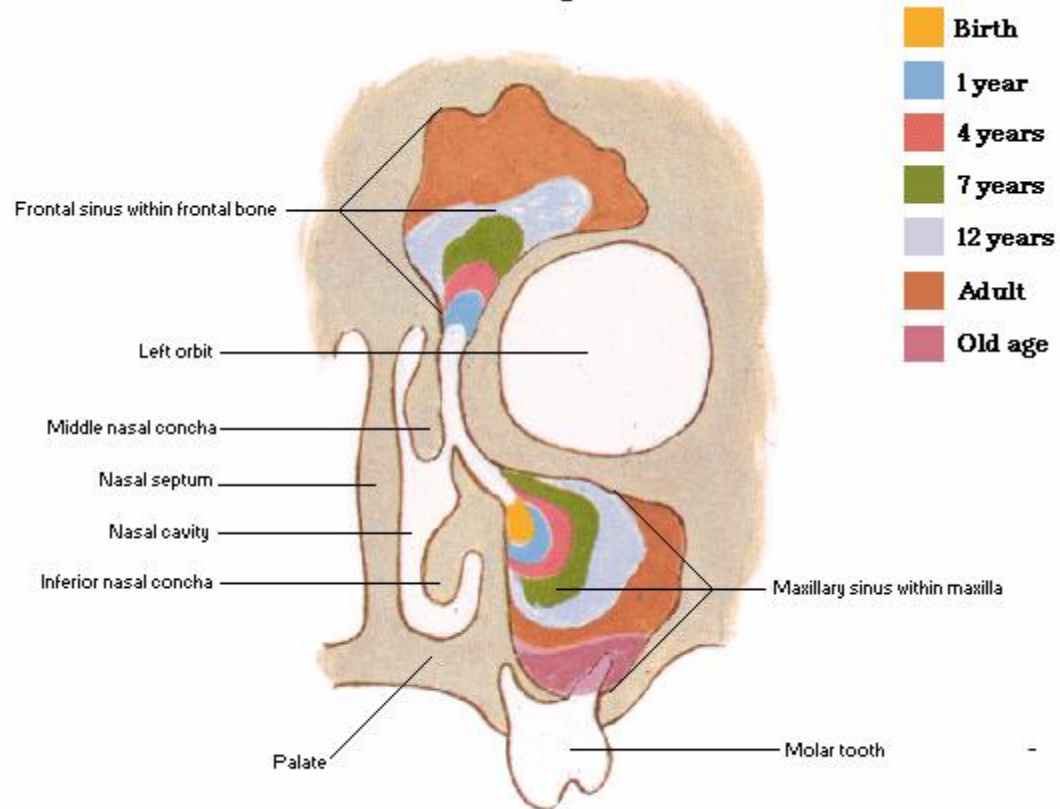
Lateral Dissection



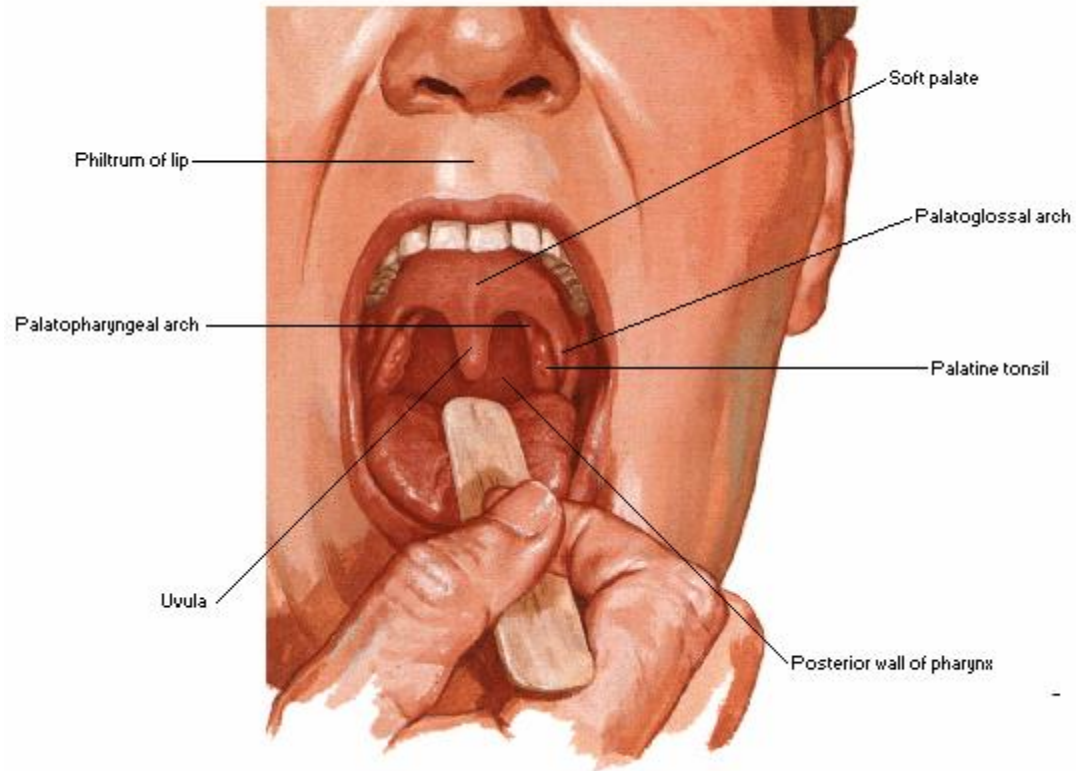
At Birth



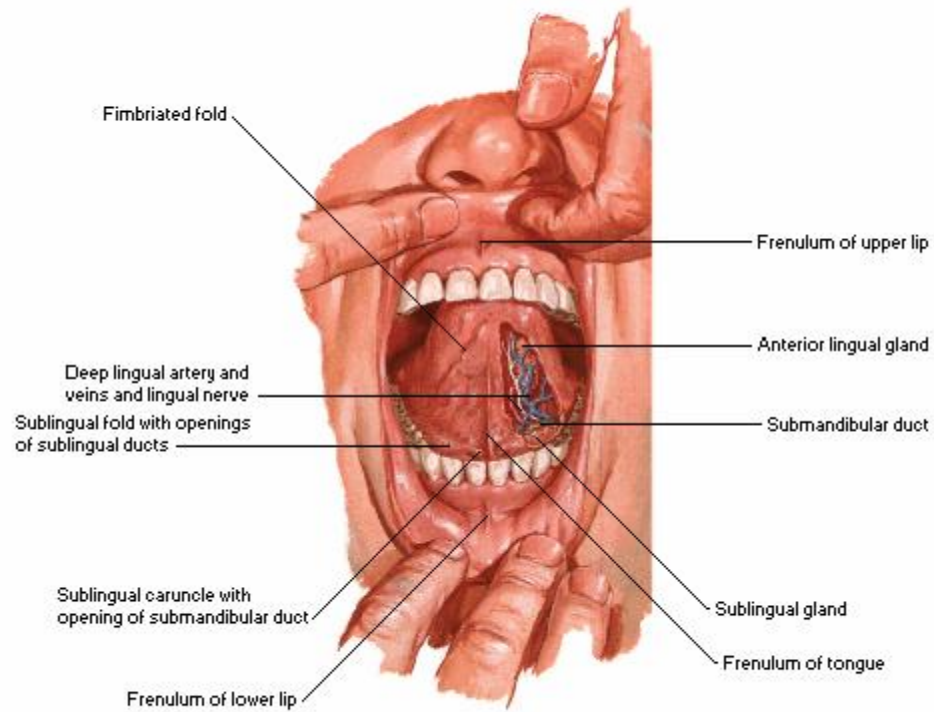
Growth throughout Life



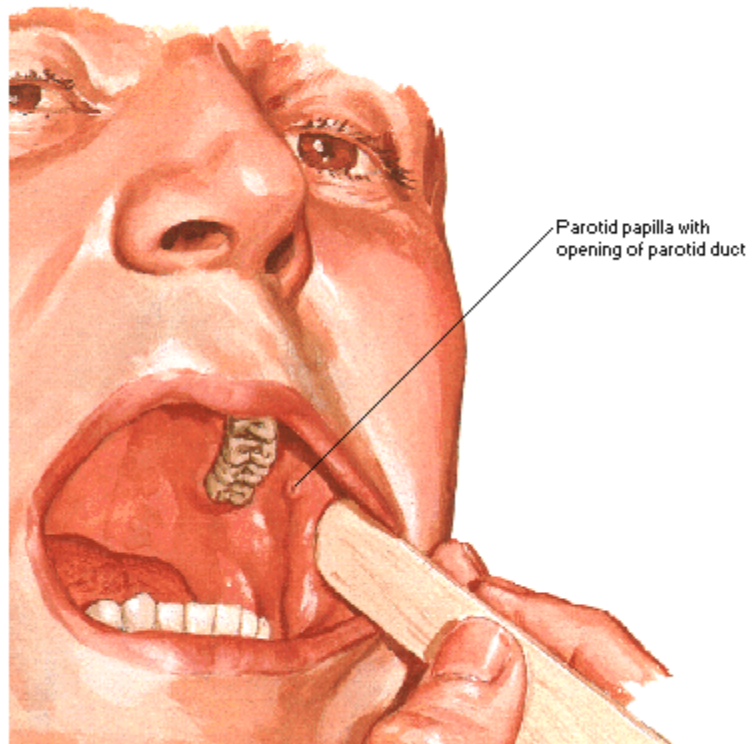
Dorsum of Tongue and Palate



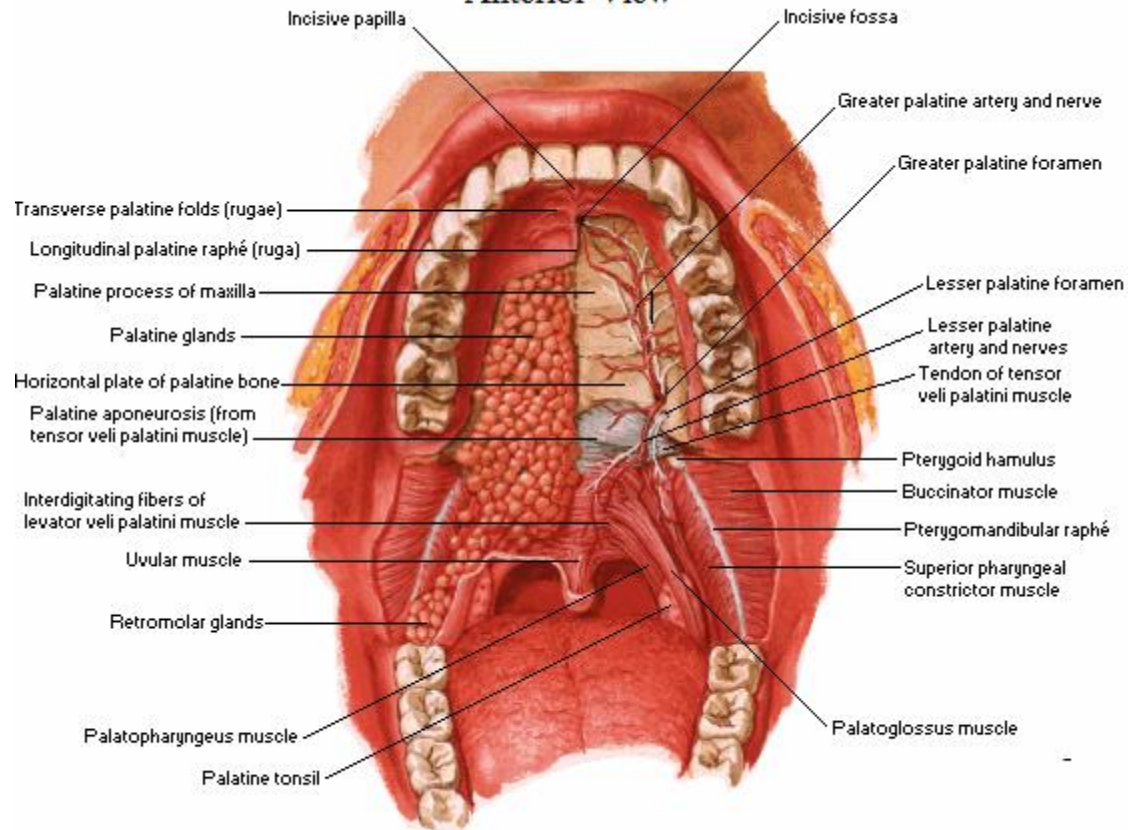
Sublingual Region - Anterior Vestibule



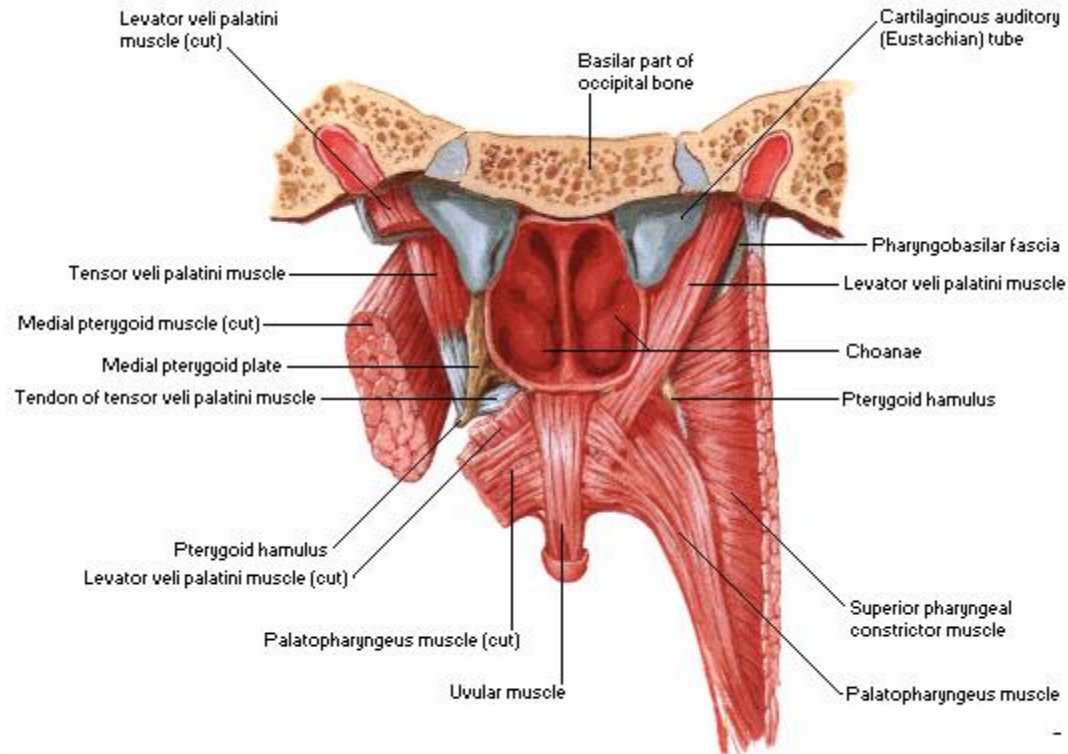
Lateral Oral Vestibule



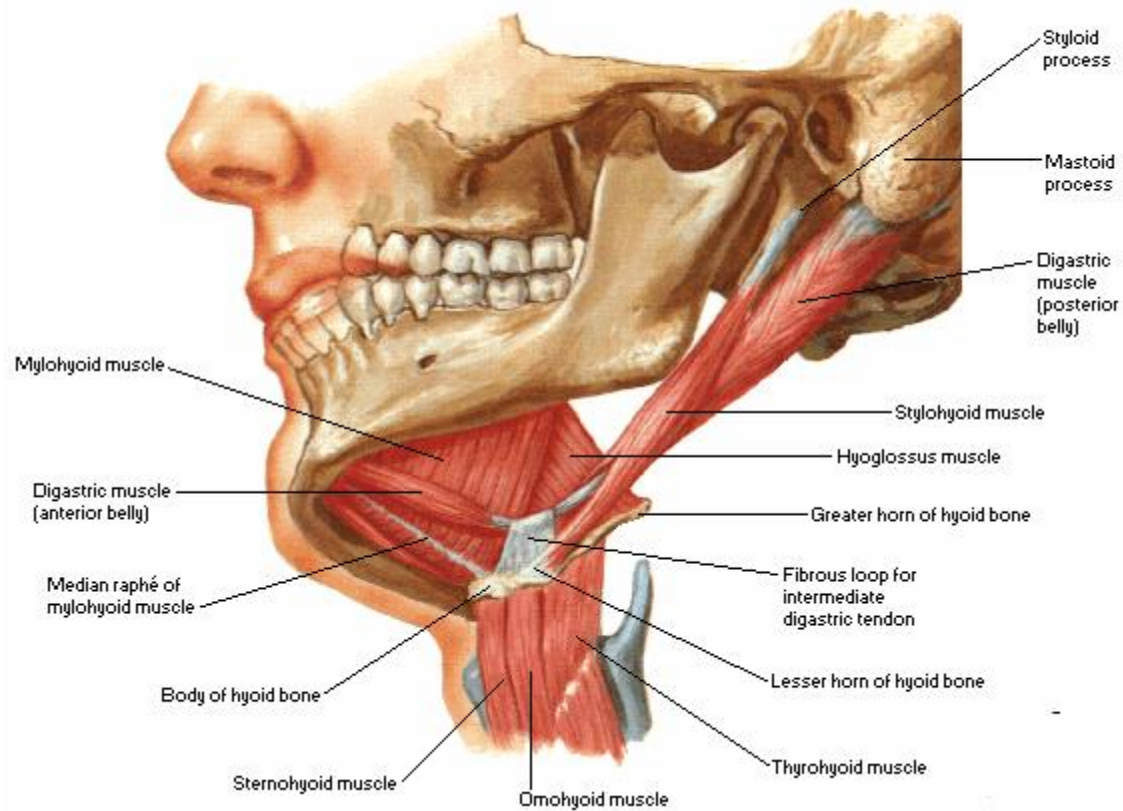
Anterior View



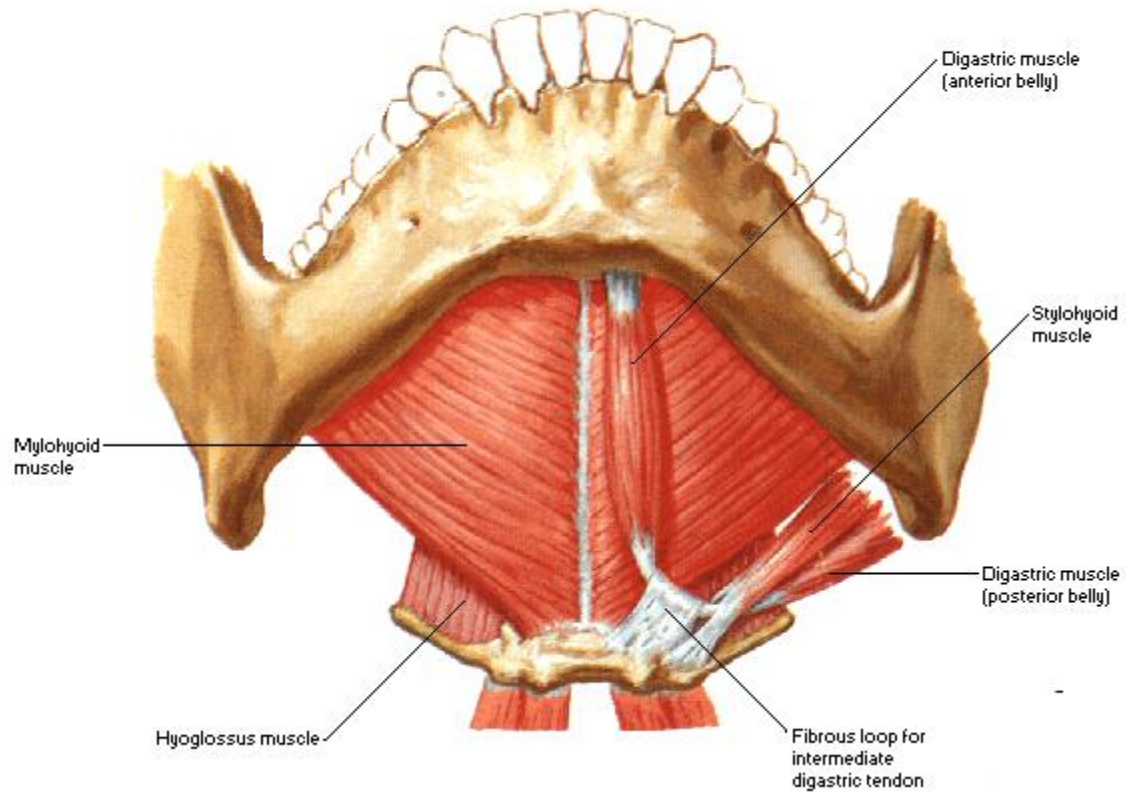
Posterior View



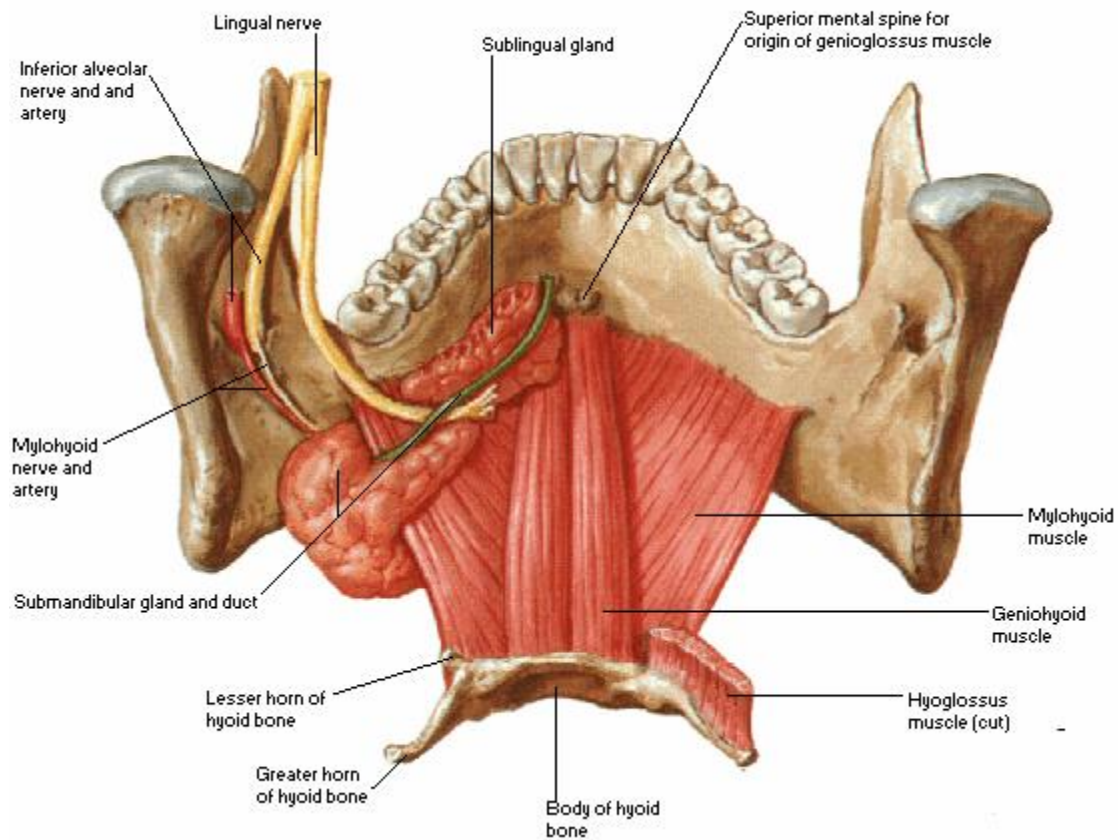
Lateral, Slightly Inferior View



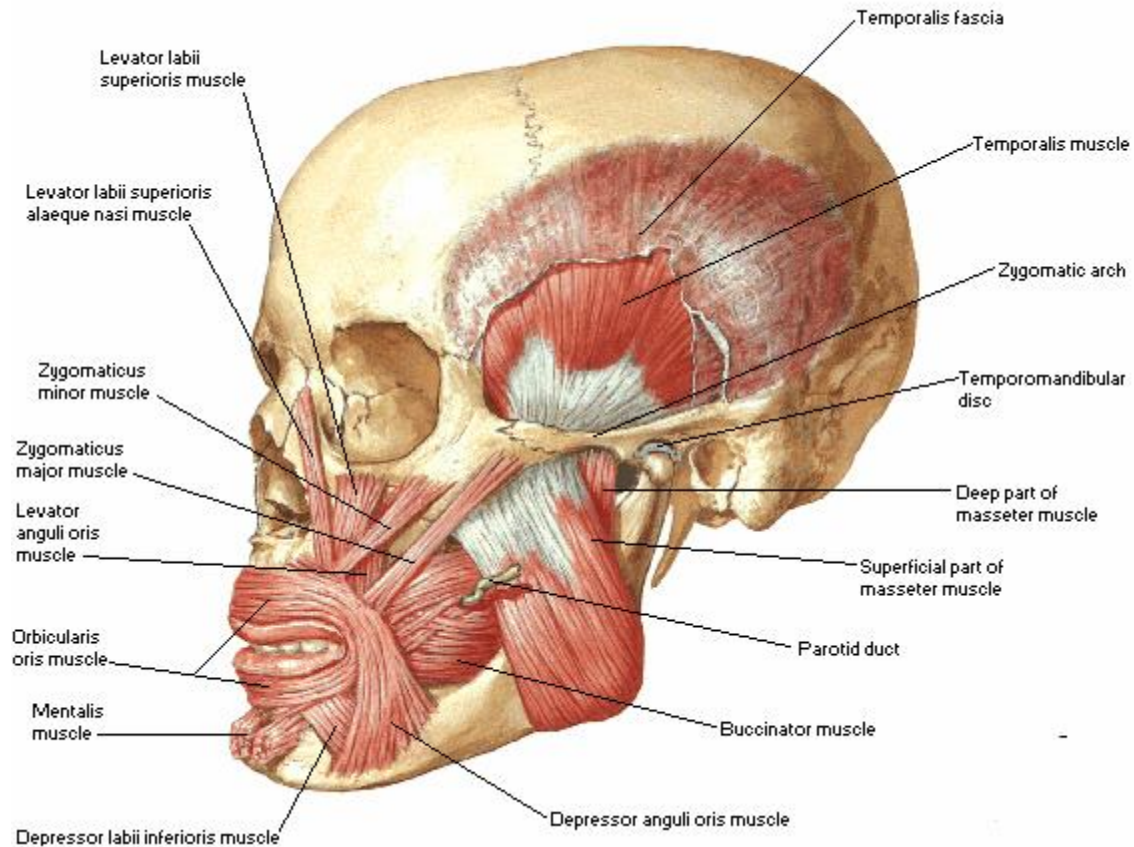
Anteroinferior View



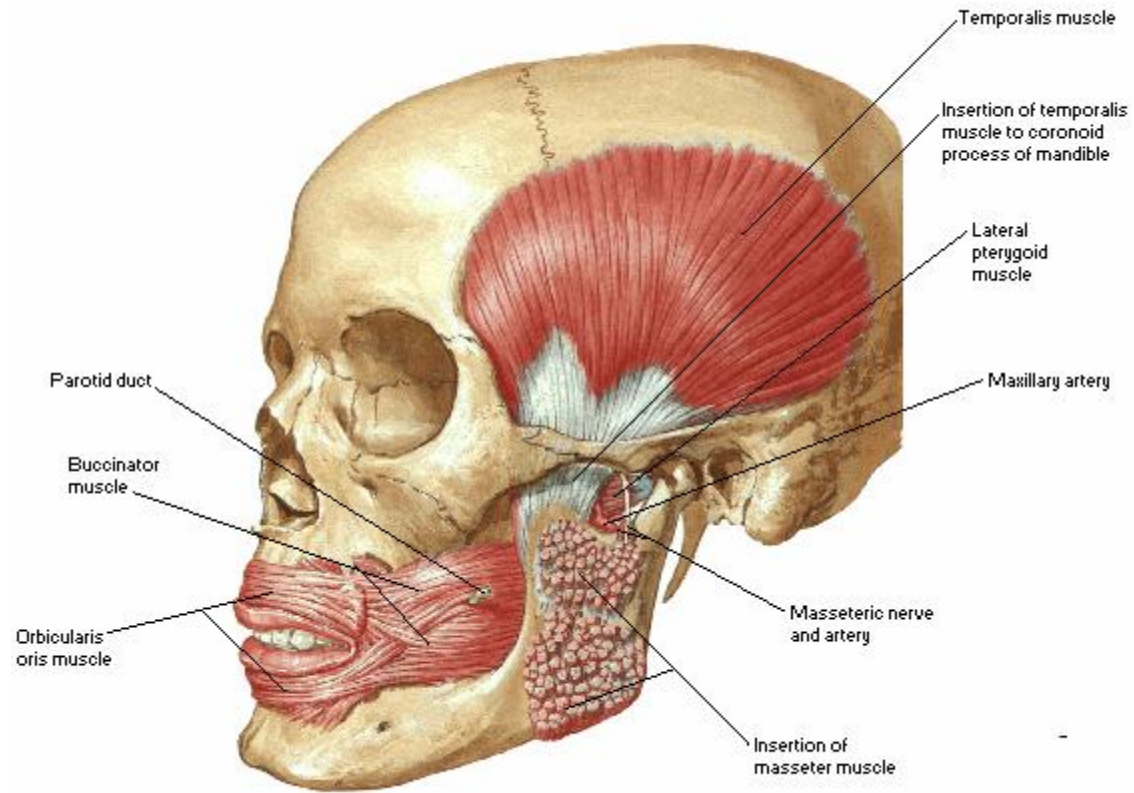
Posterosuperior View



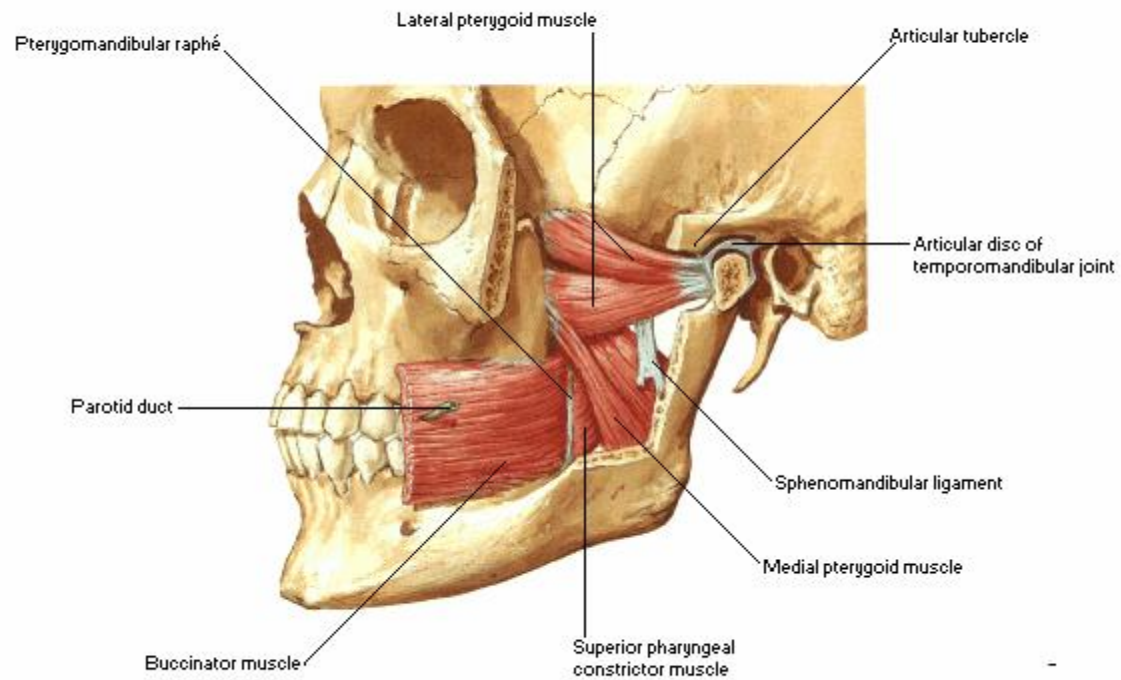
Lateral View



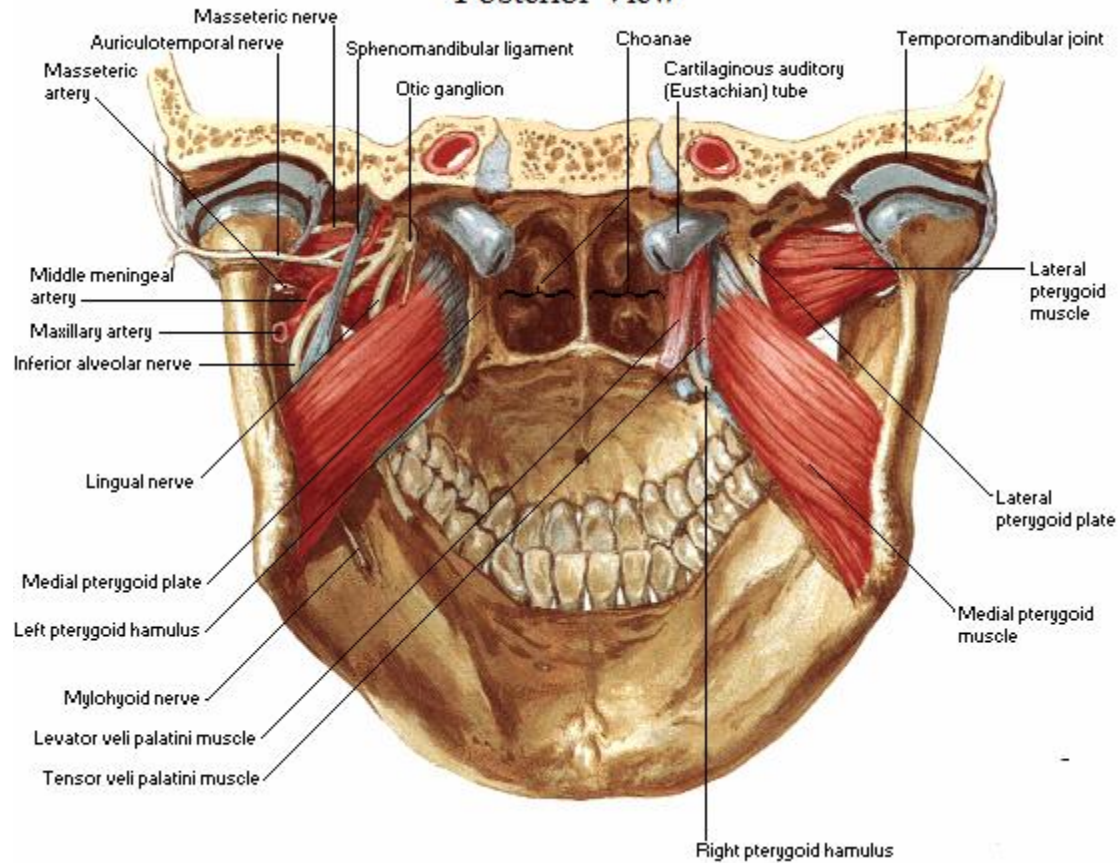
Lateral View

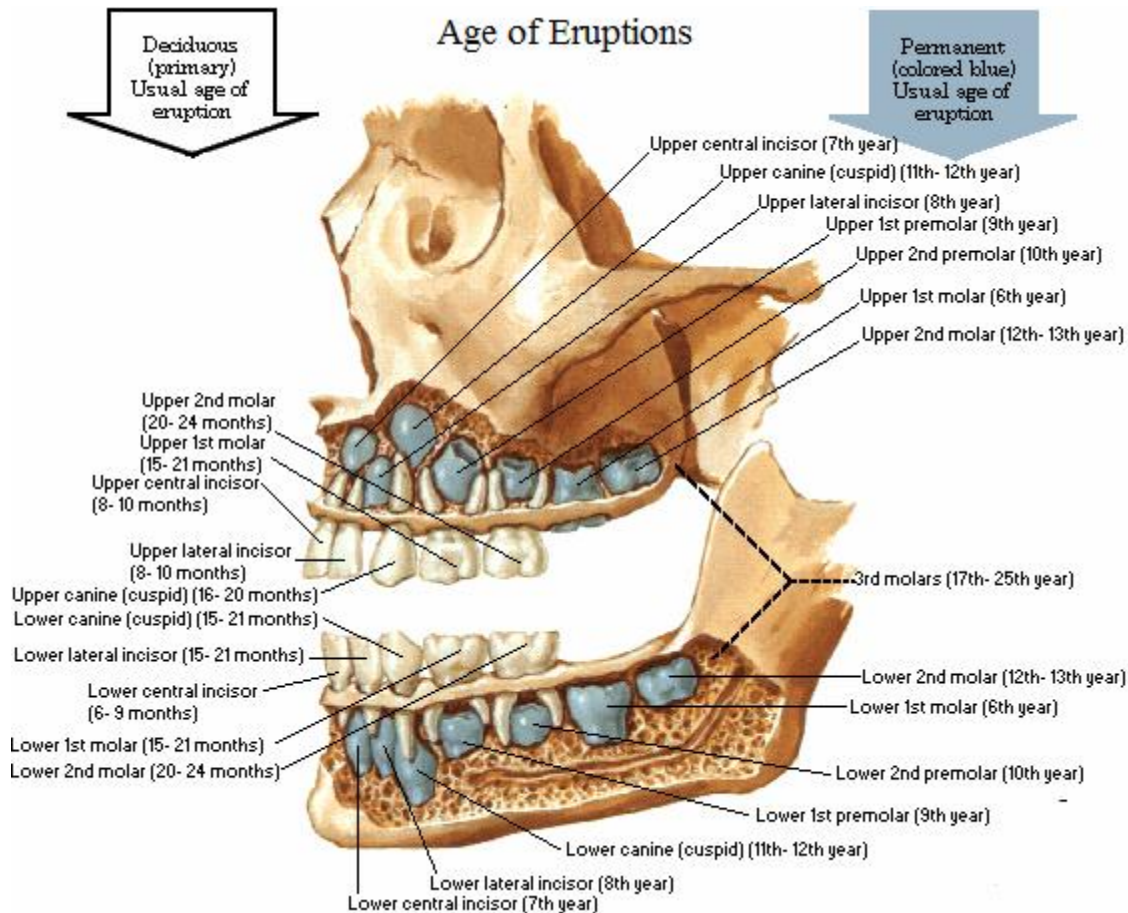


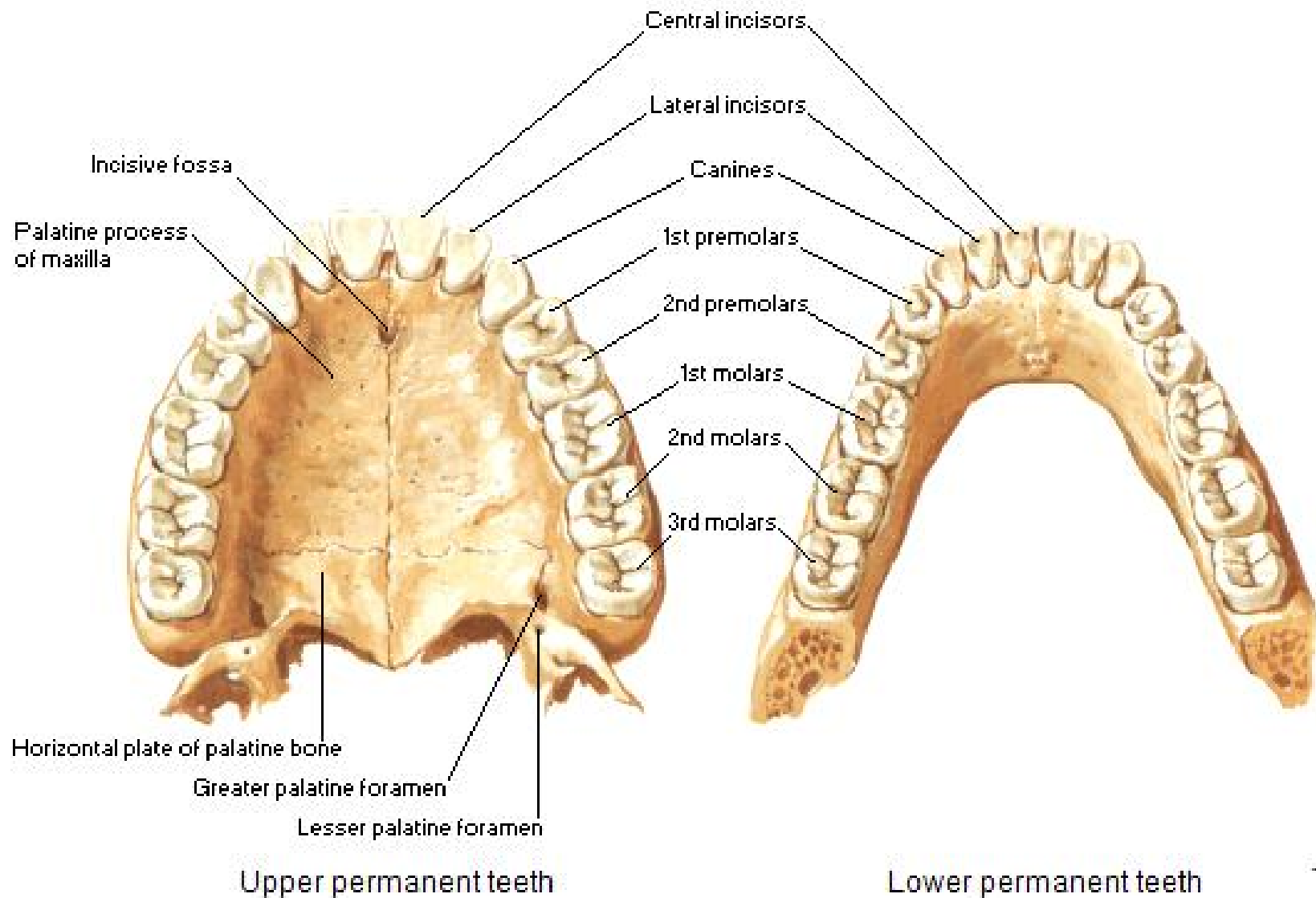
Lateral View

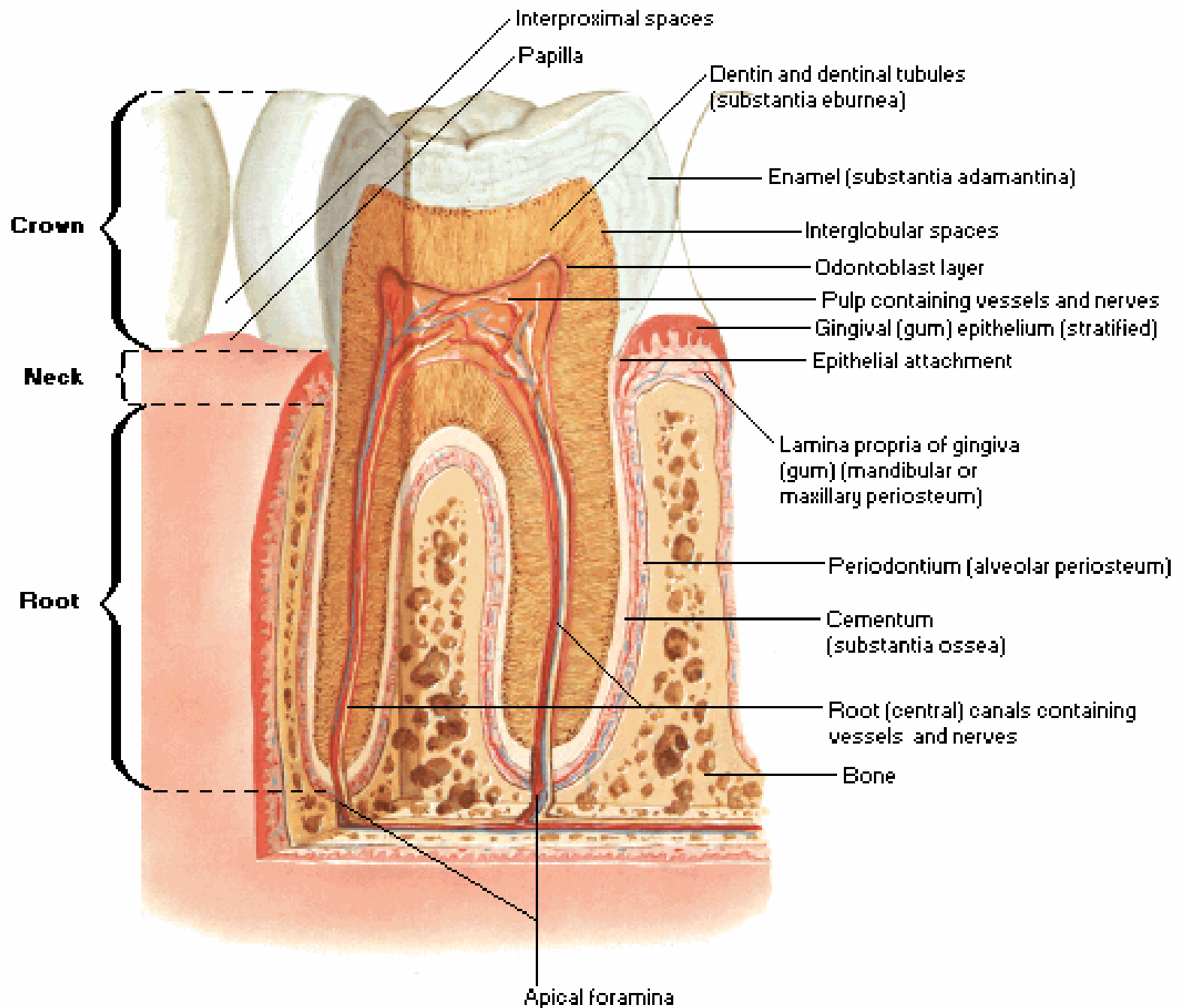


Posterior View

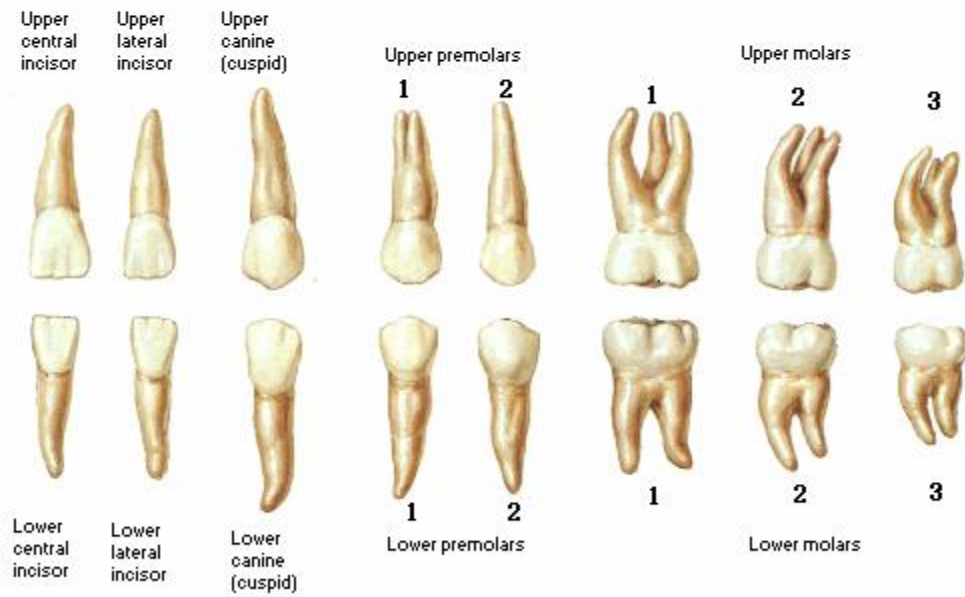


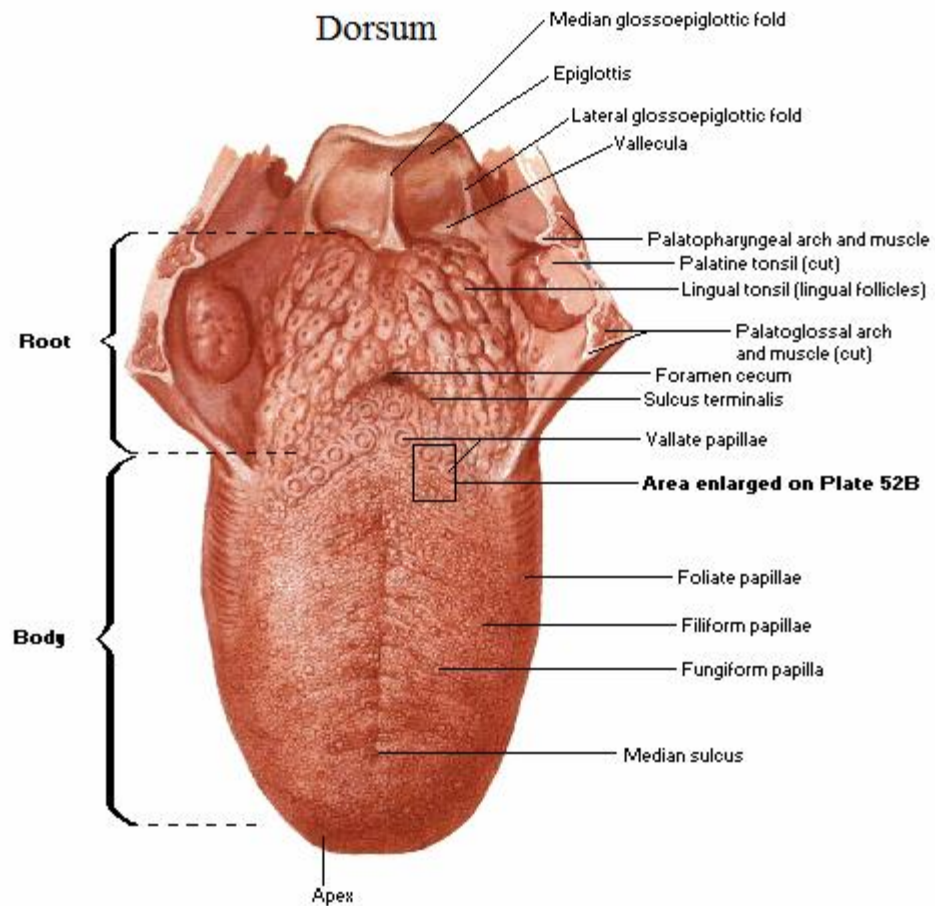




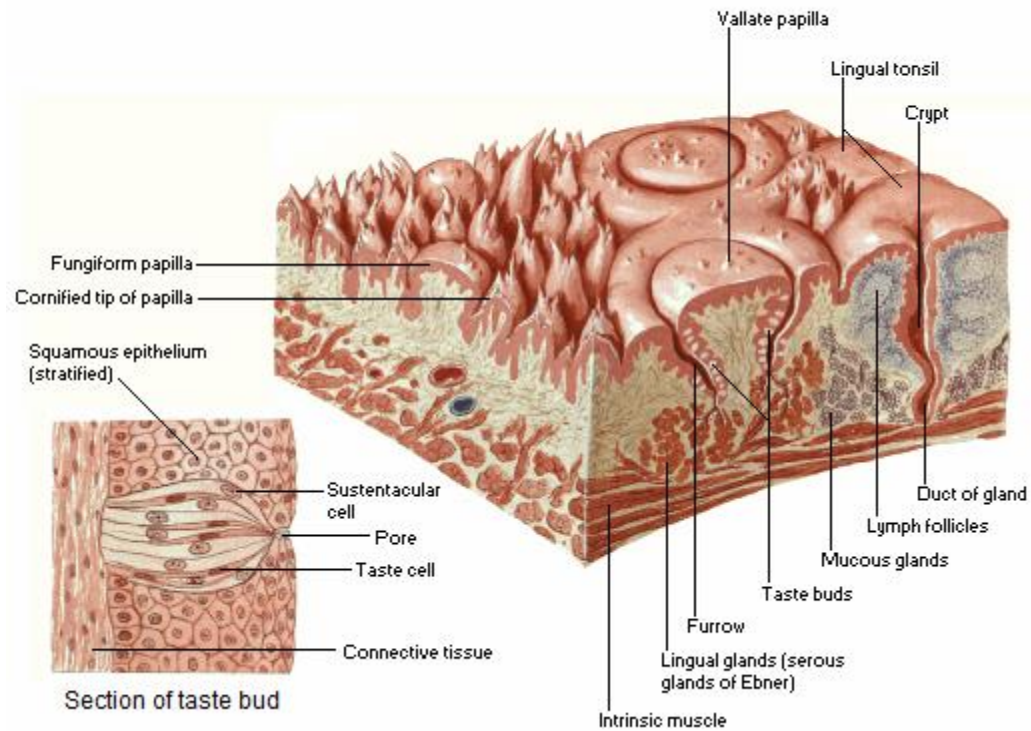


Labiobuccal View

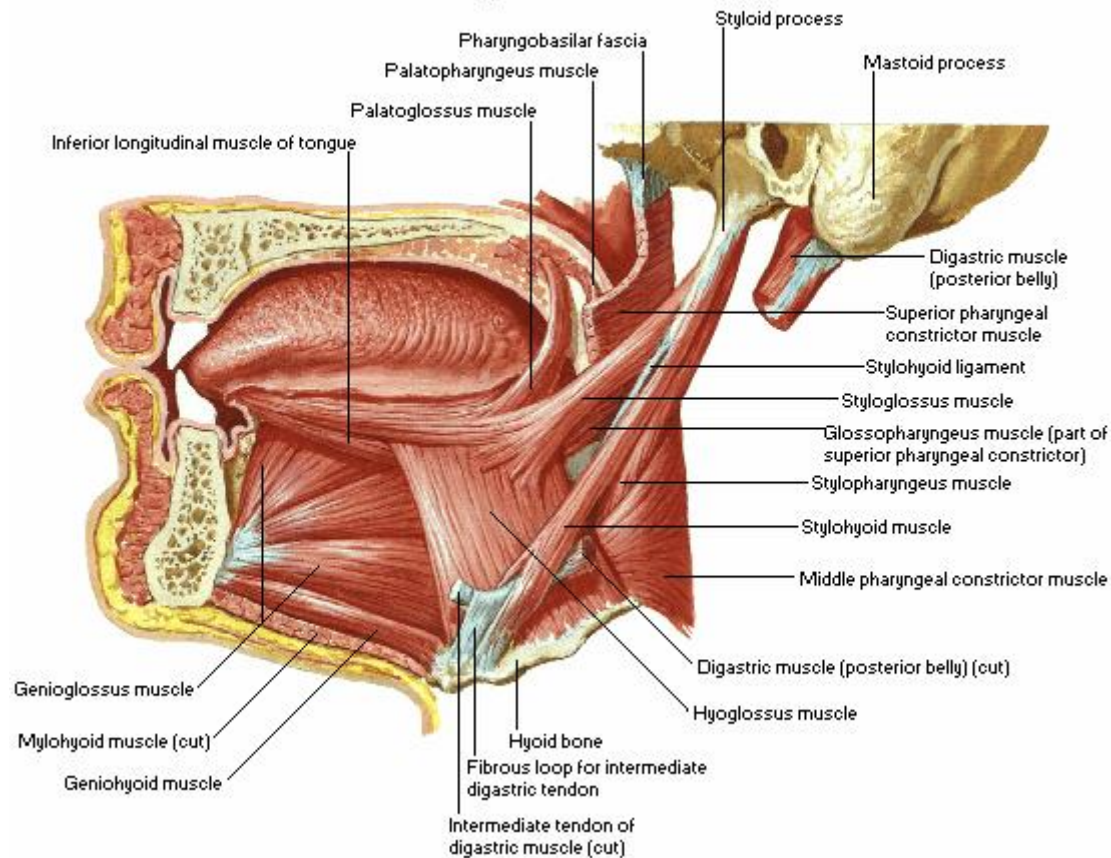




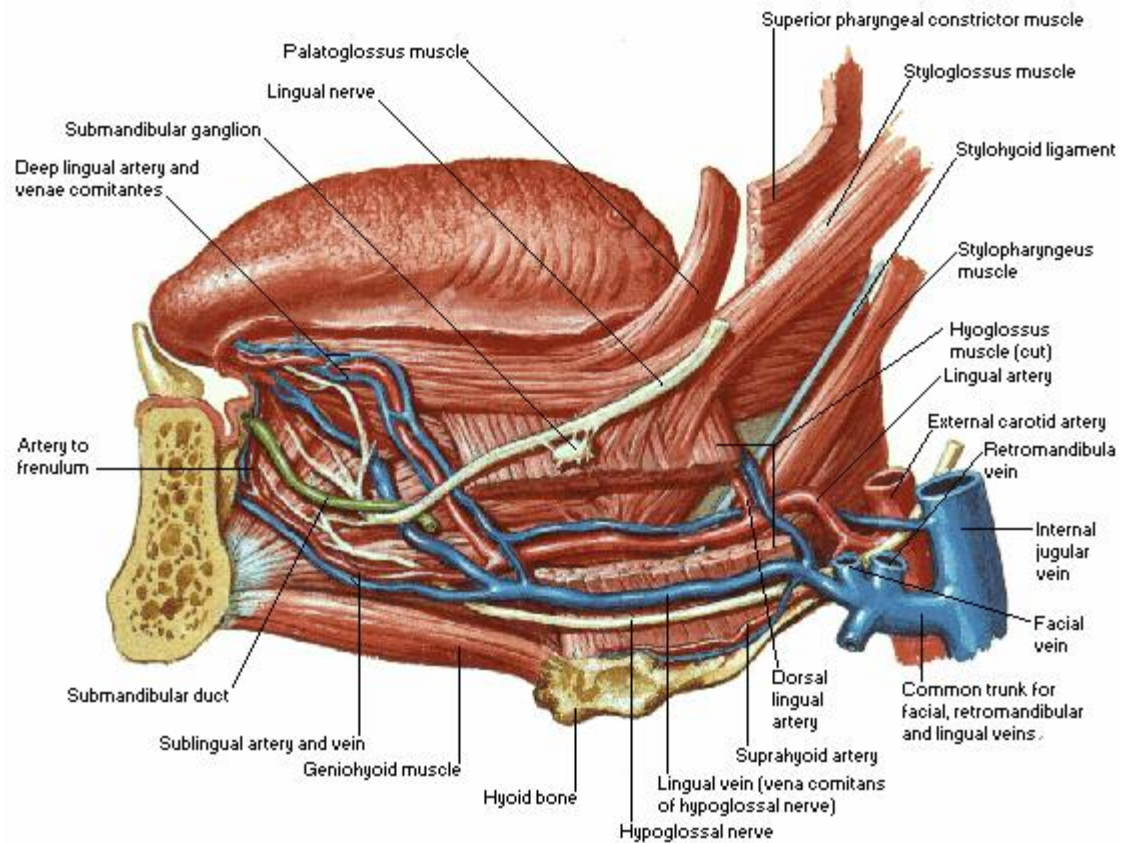
Area Indicated on Plate 52A



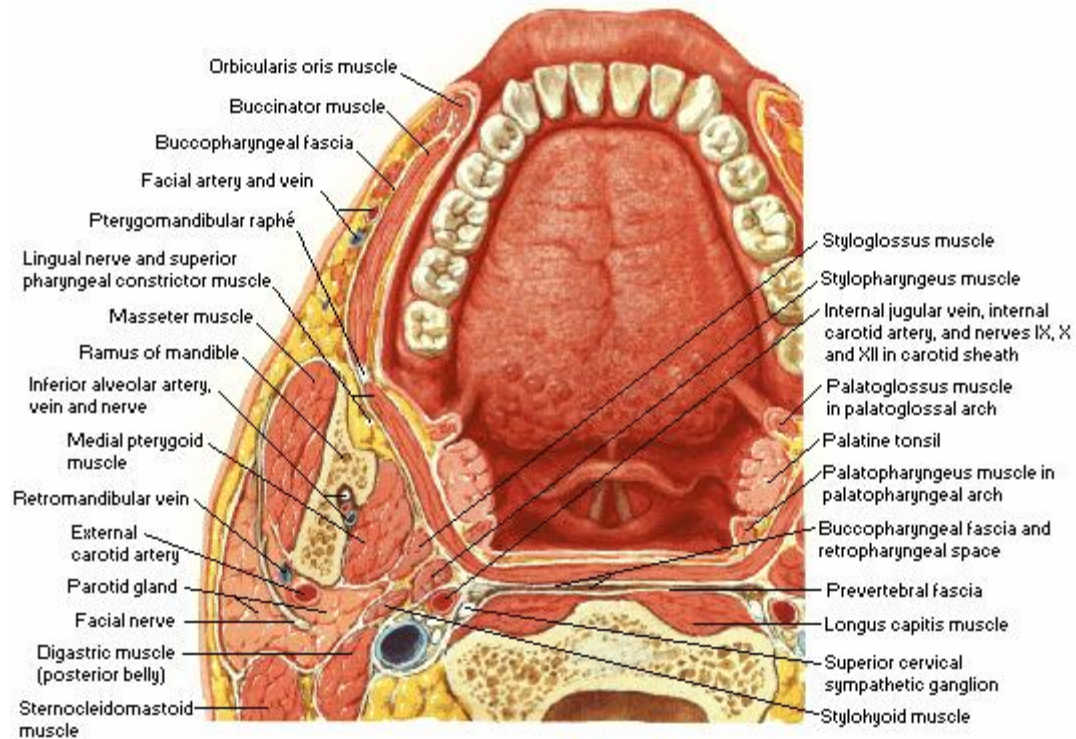
Sagittal Section



Sagittal Section

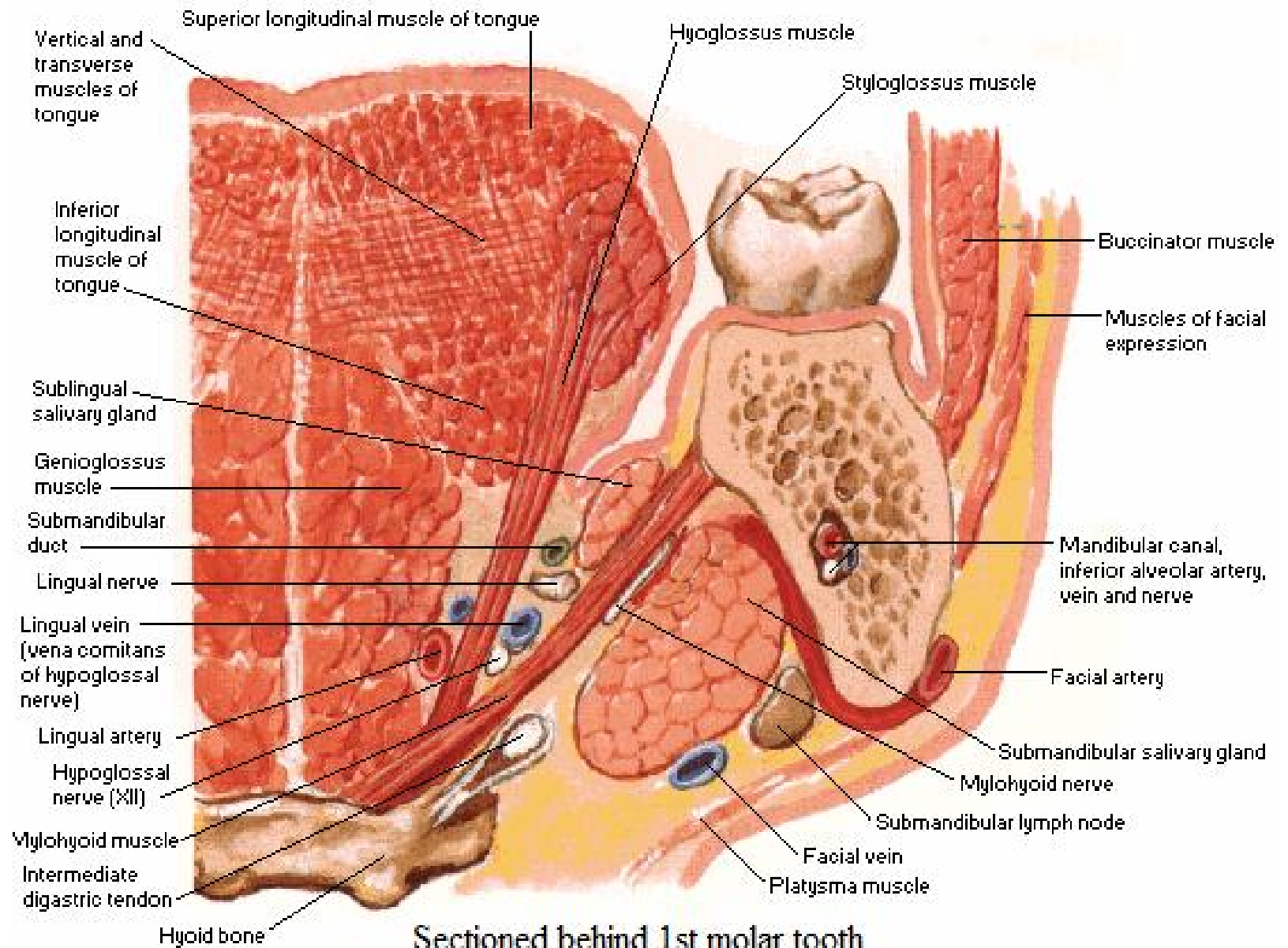


Horizontal Section - Superior View

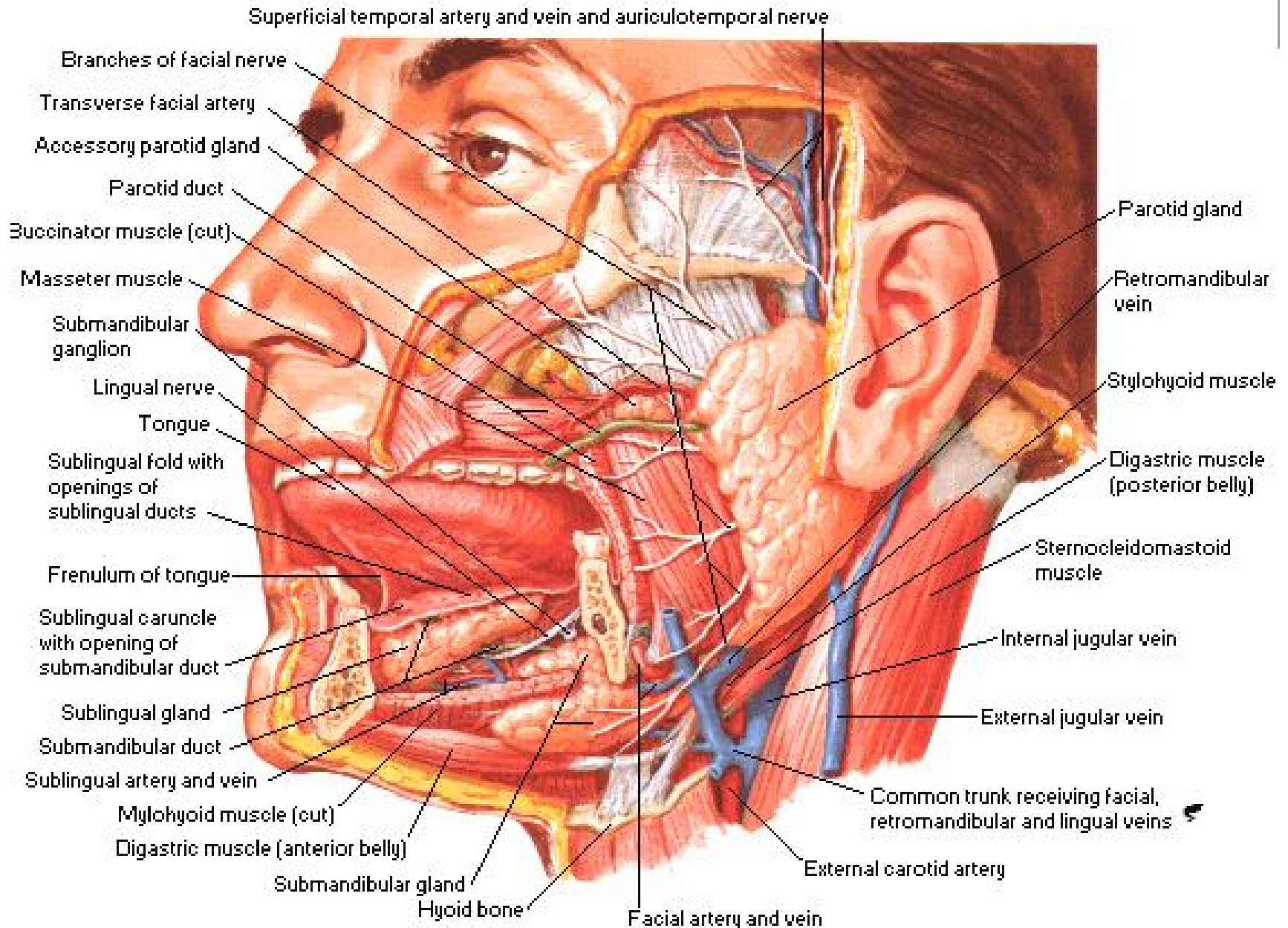


Sectioned below lingula of mandible

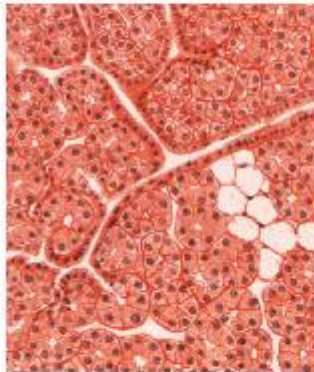
Frontal Section - Anterior View



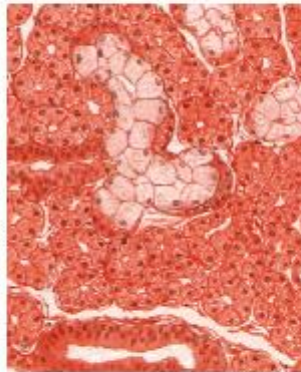
Dissection



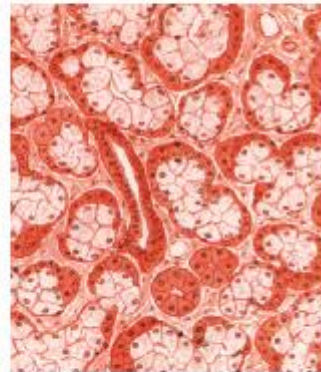
Histology



Parotid gland: totally serous

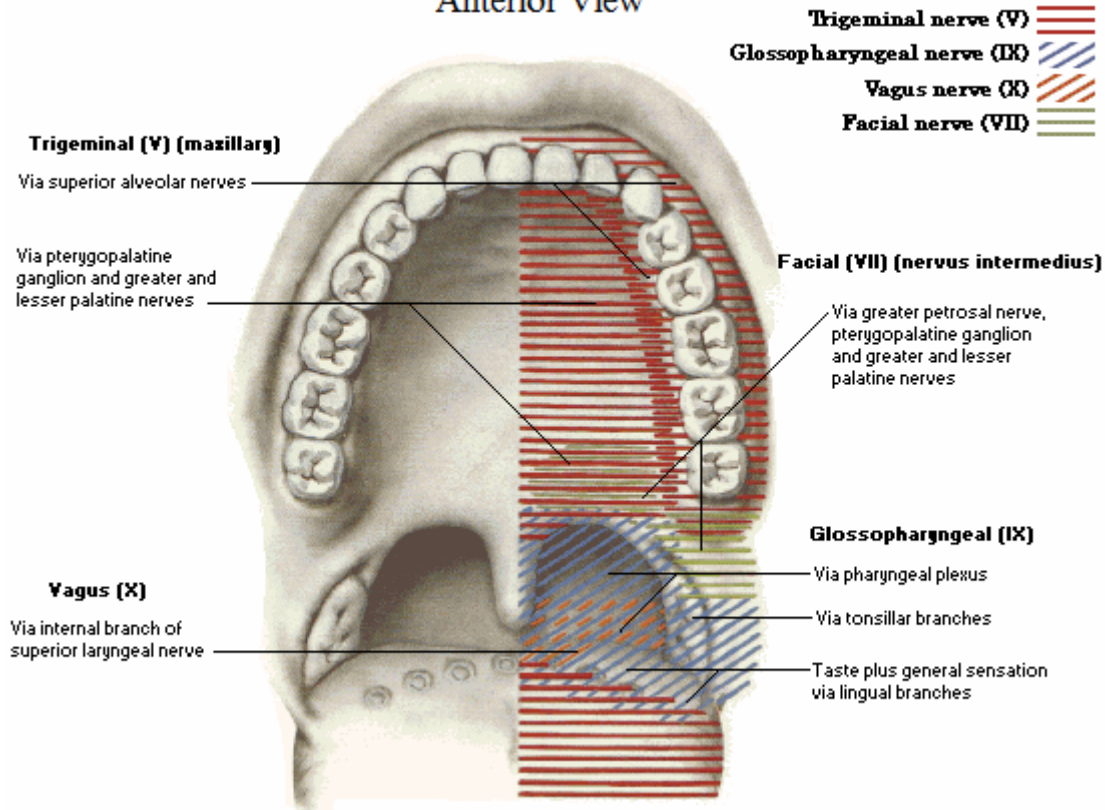


Submandibular gland: mostly
serous, partially mucous

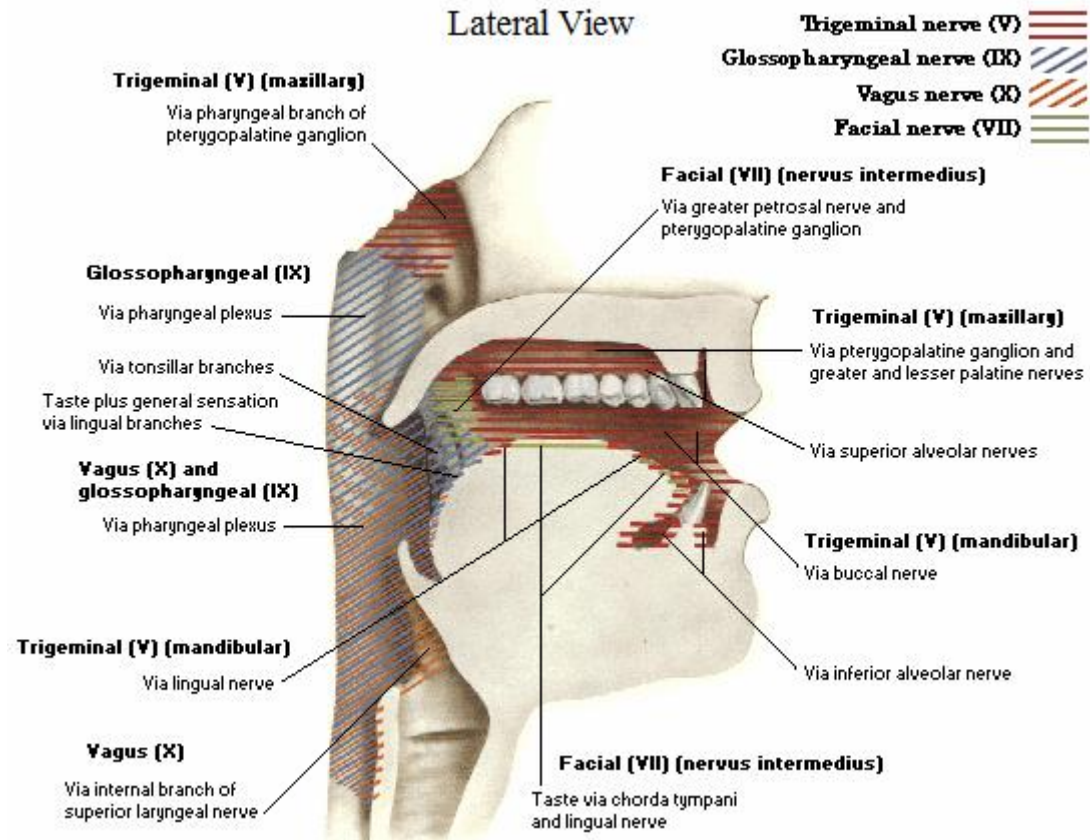


Sublingual gland: almost
completely mucous

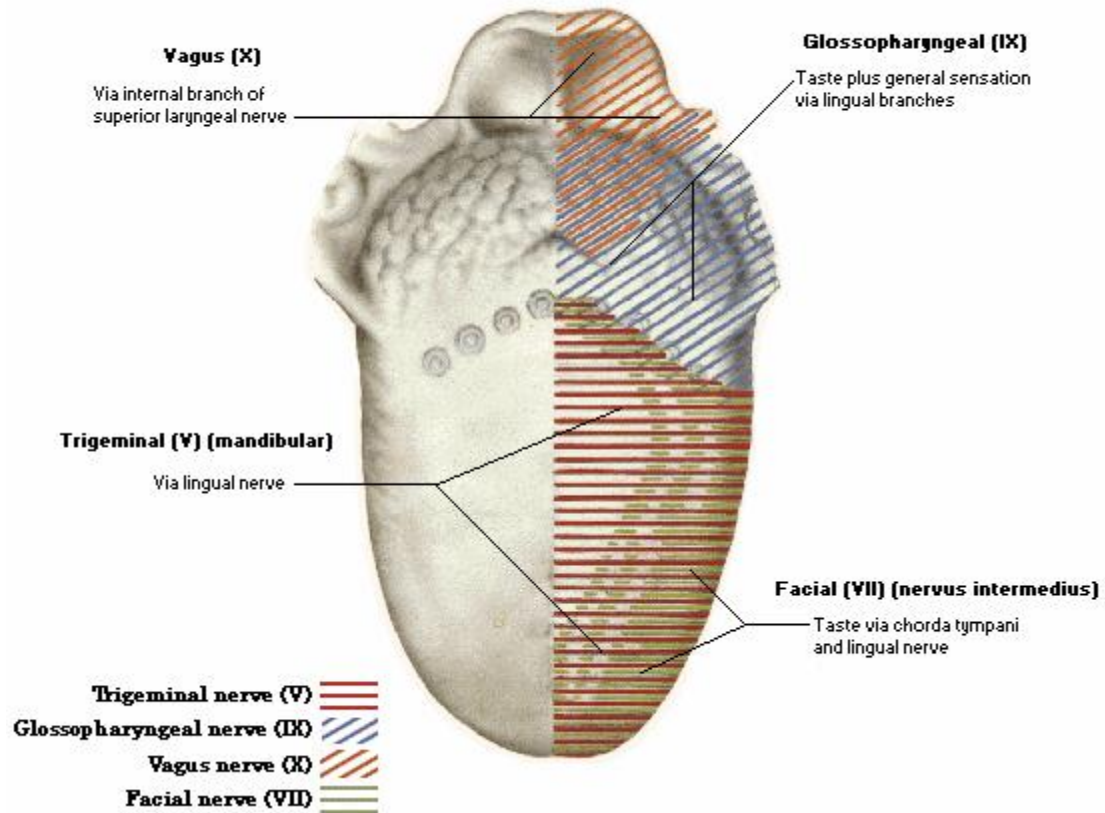
Anterior View



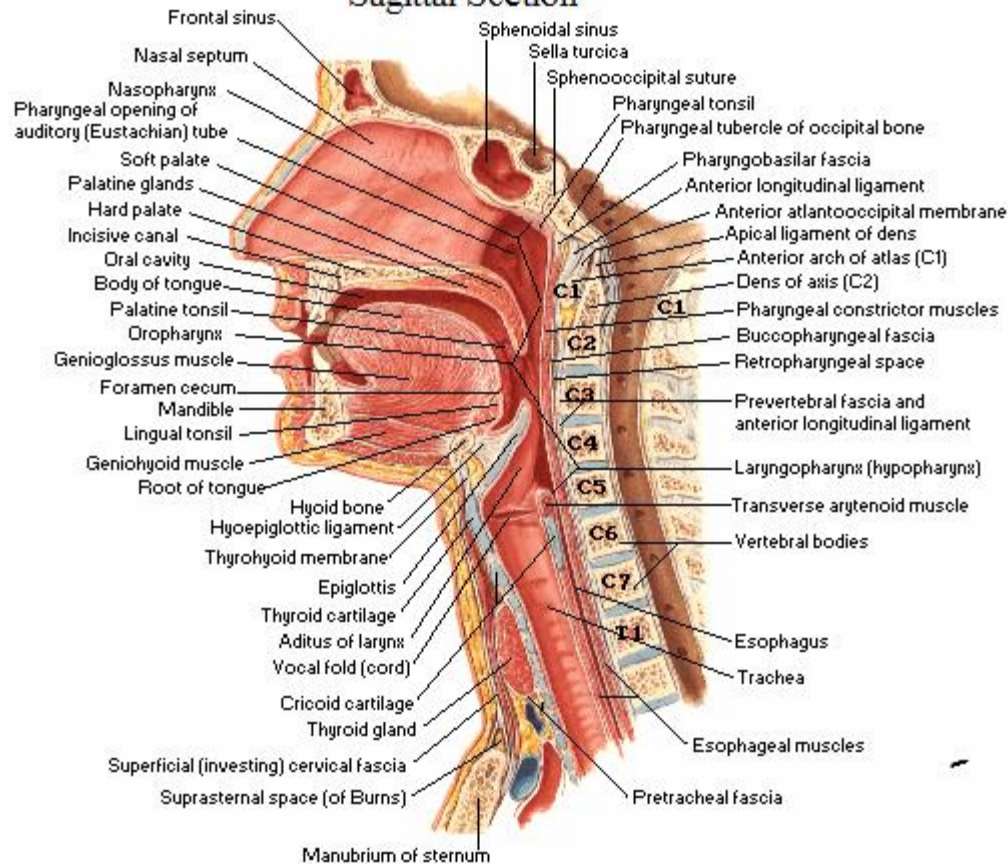
Lateral View



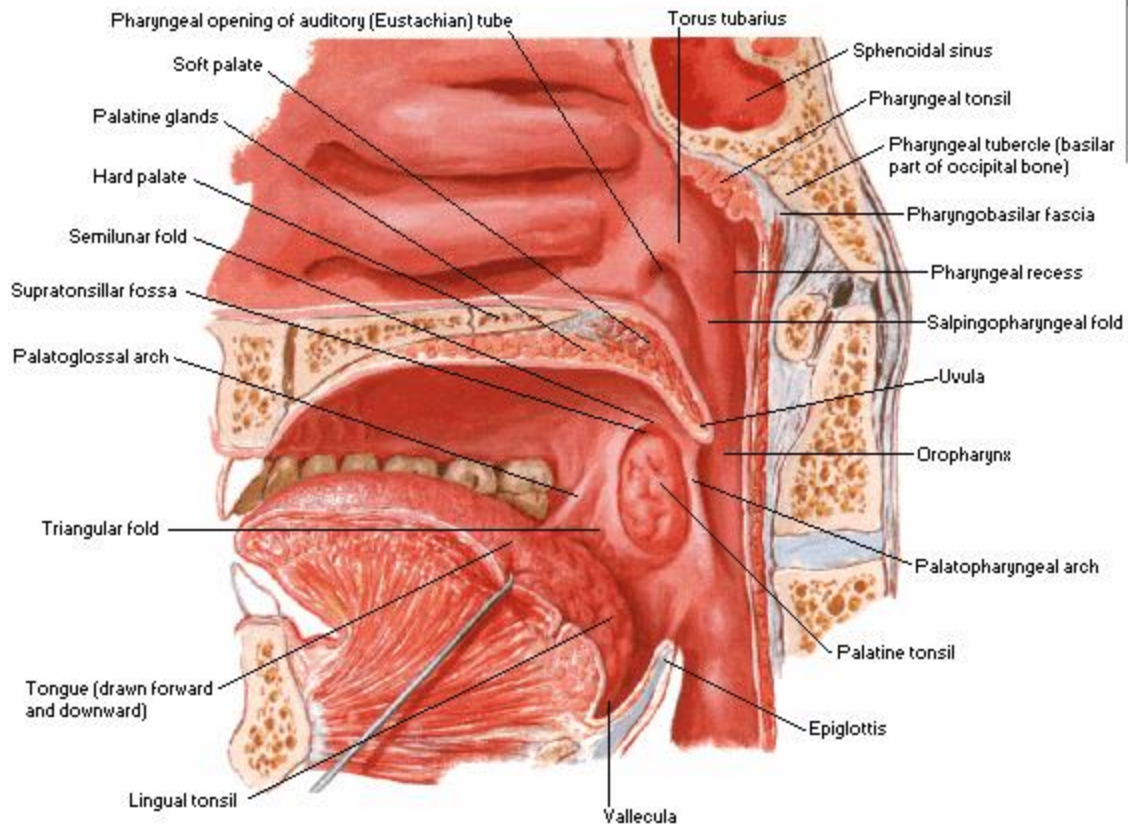
Dorsum of Tongue



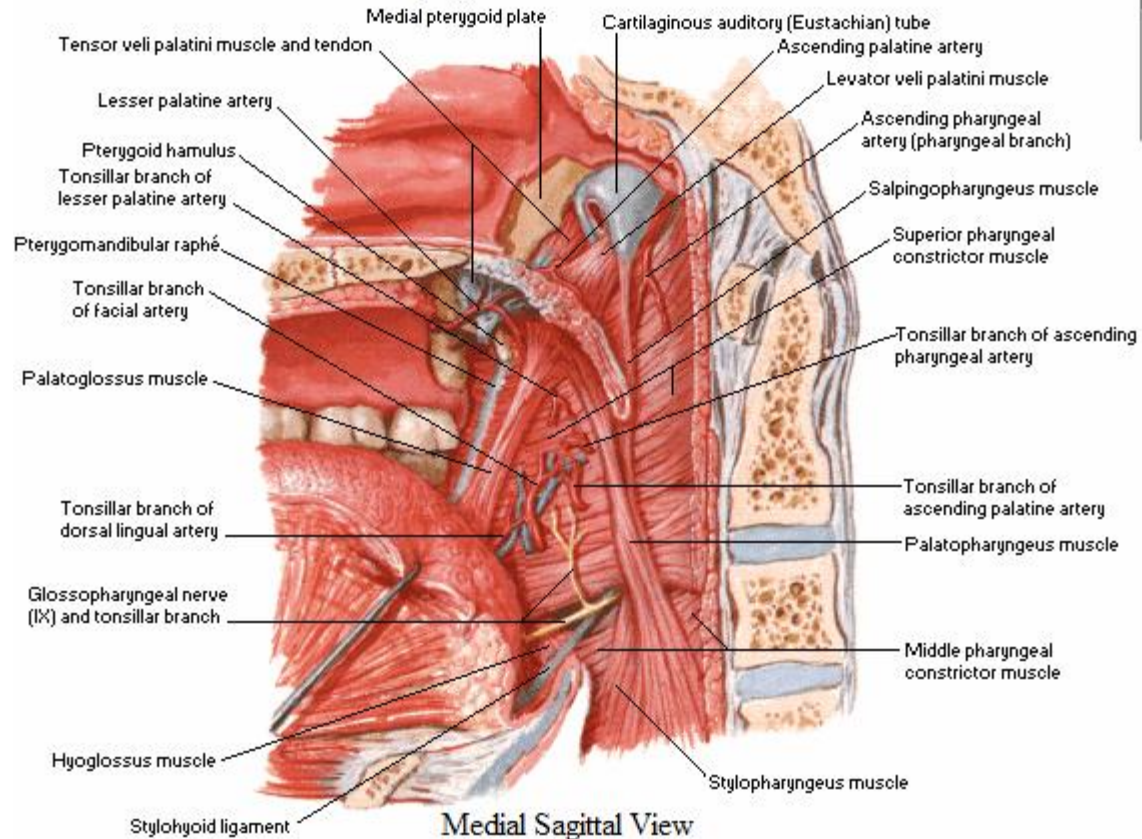
Sagittal Section



Medial Sagittal View

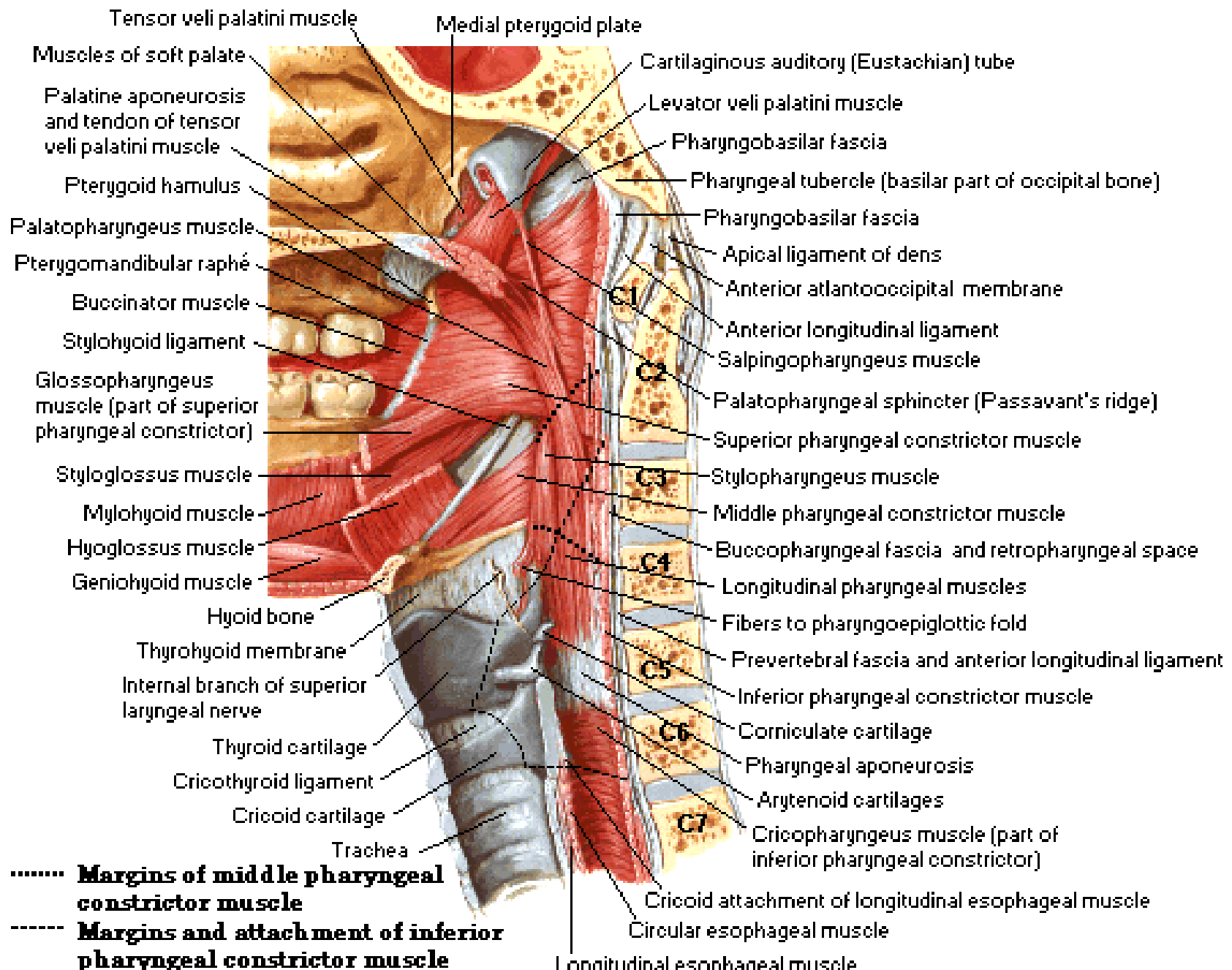


Pharyngeal Mucosa Removed

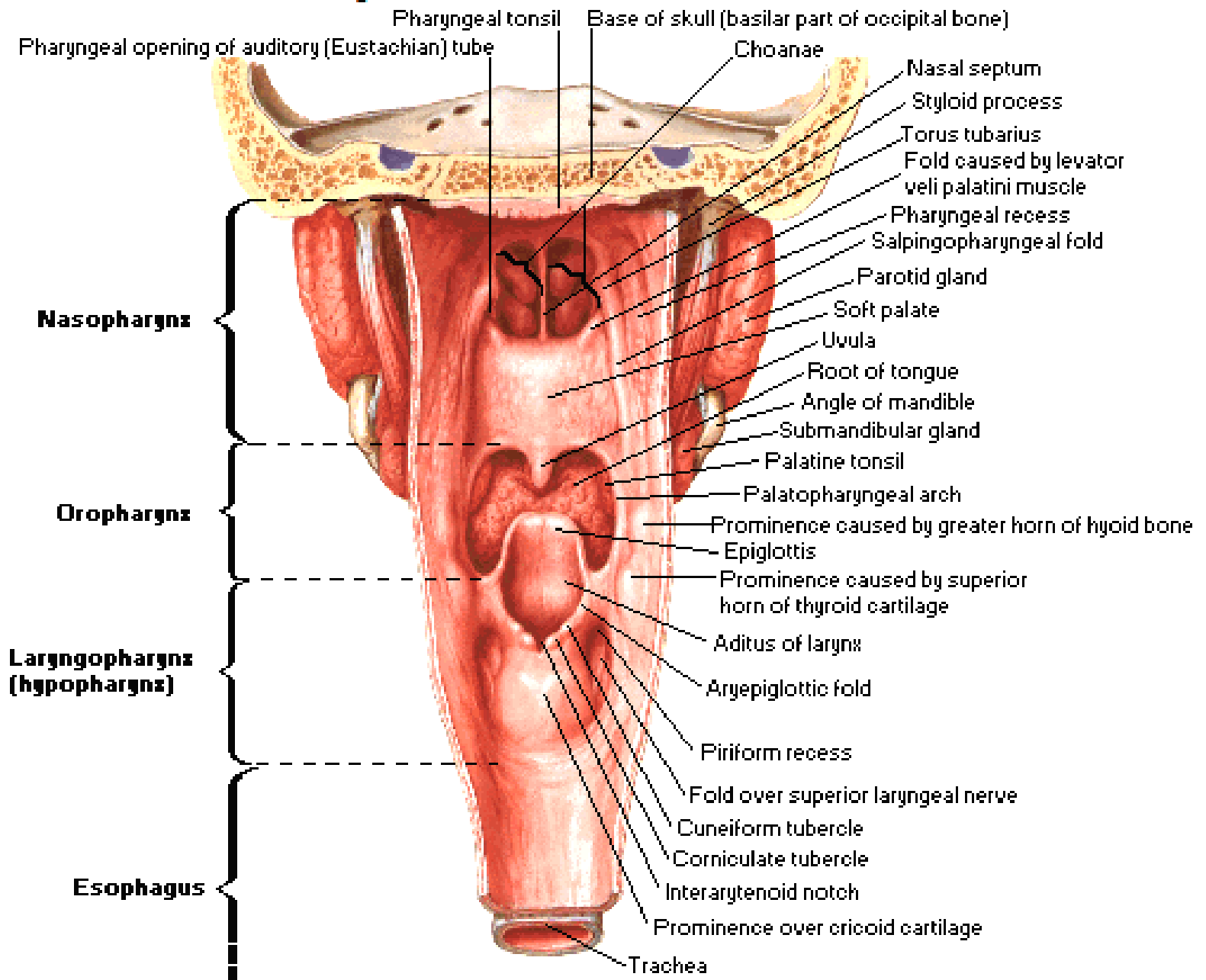


Medial Sagittal View

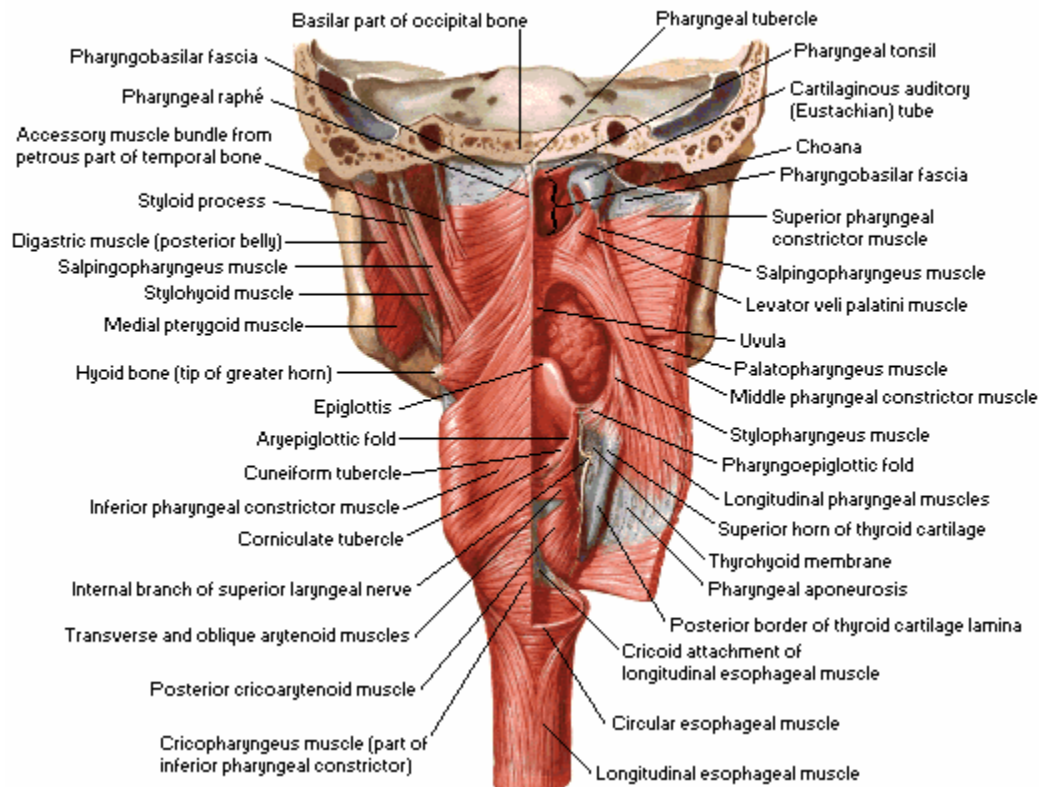
Sagittal Section



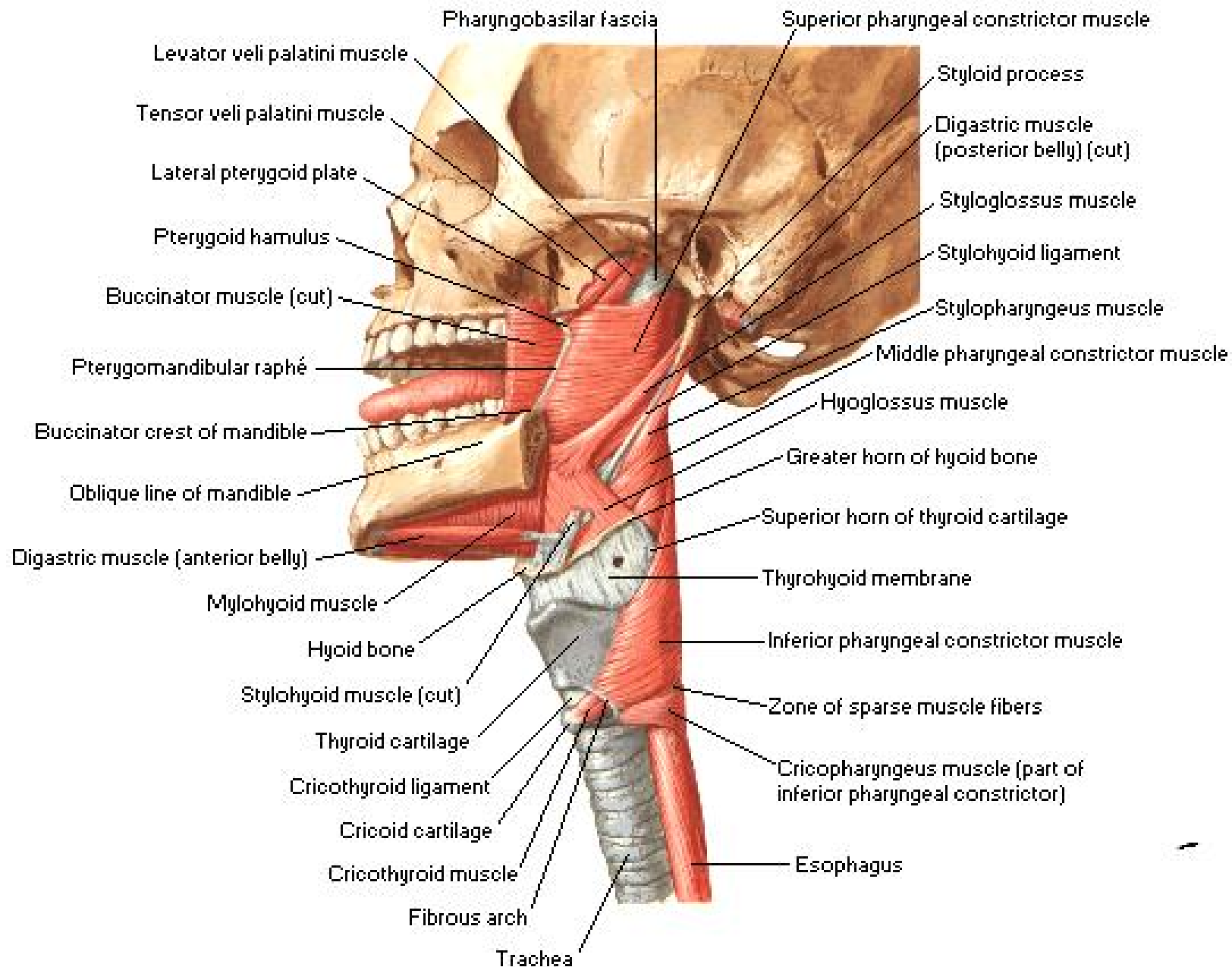
Opened Posterior View

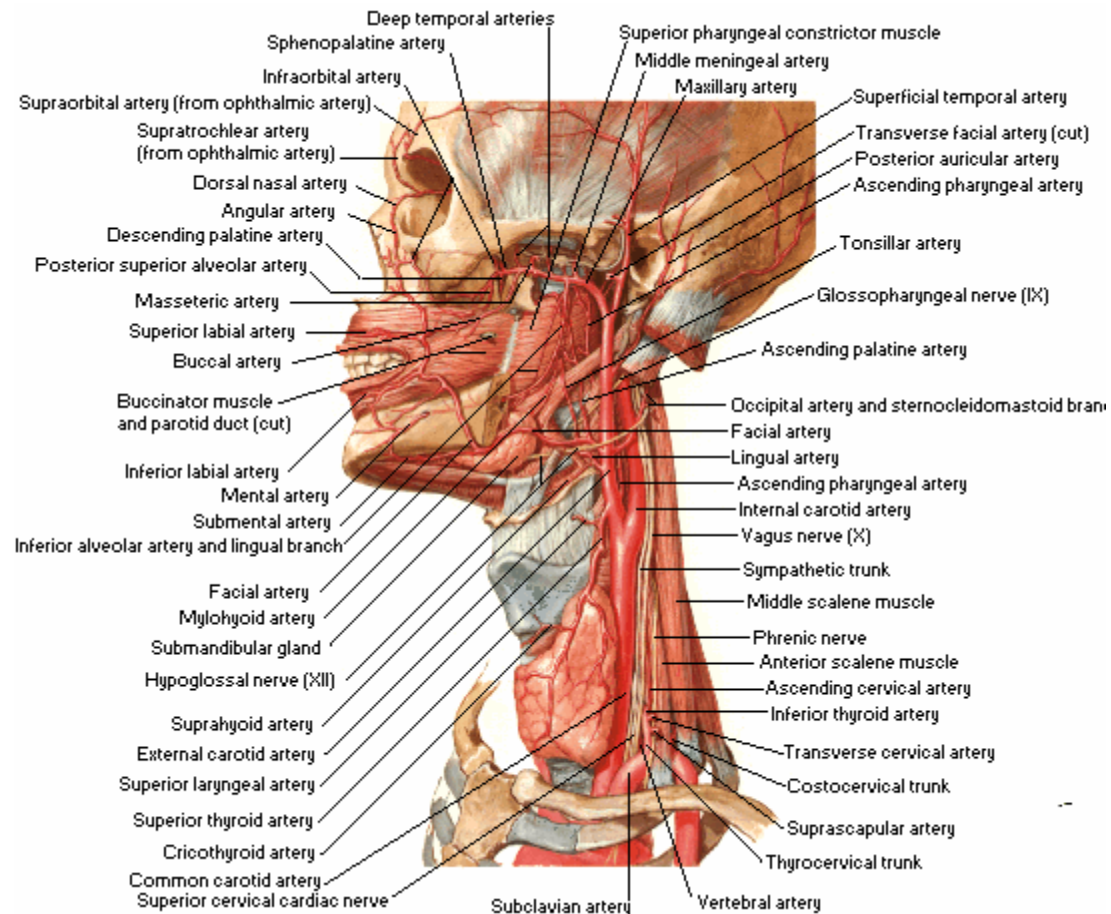


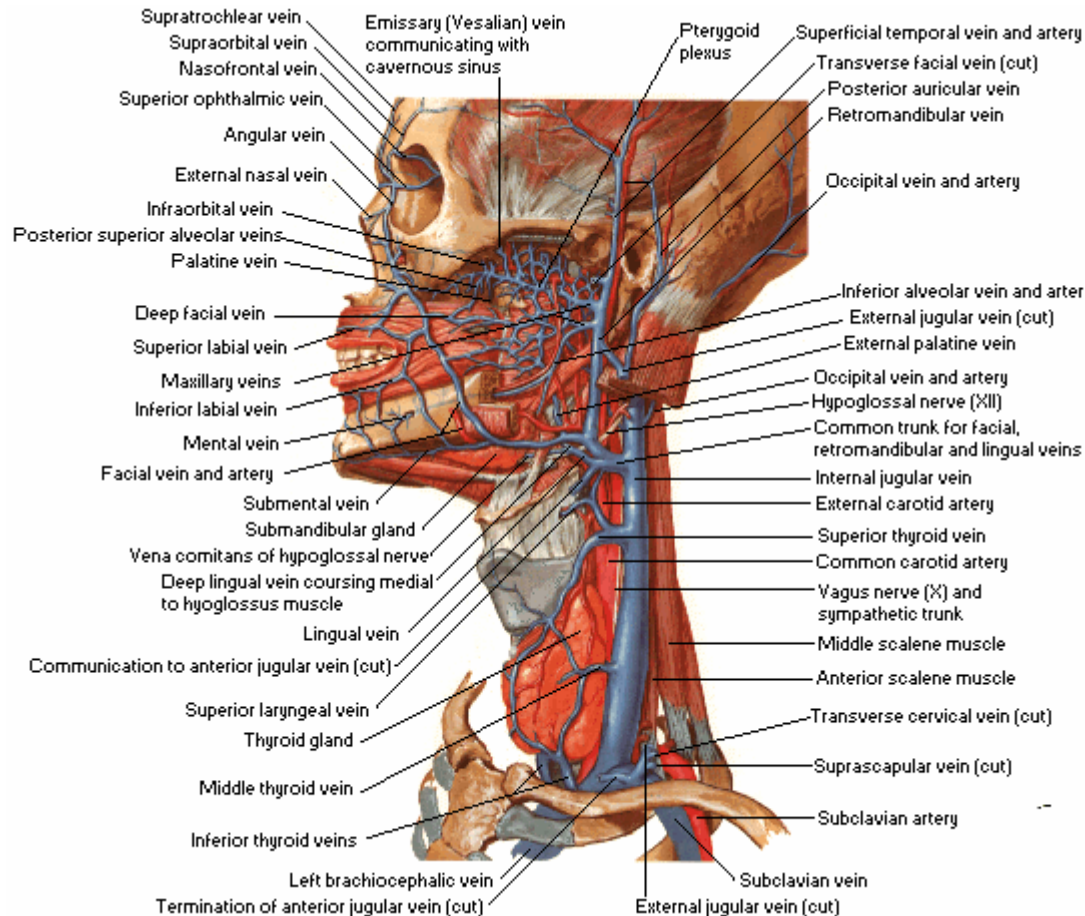
Partially Opened Posterior View

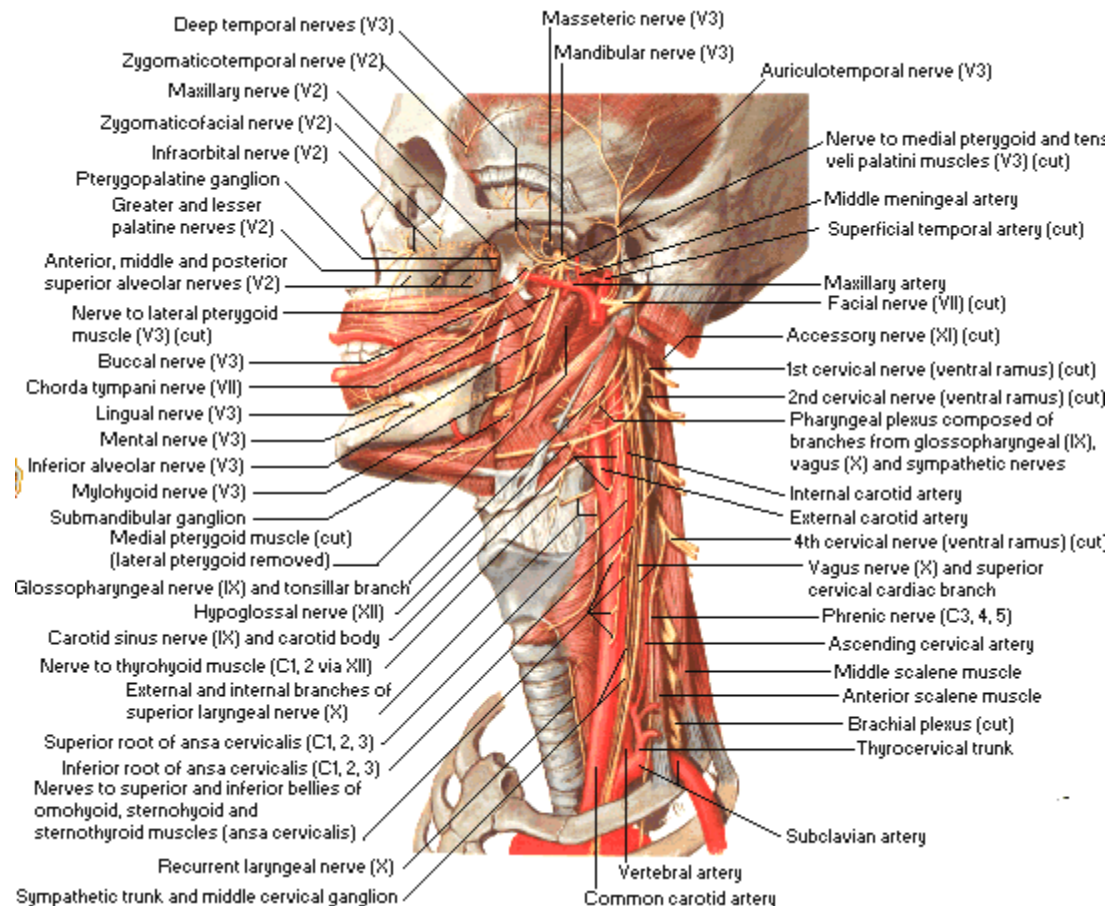


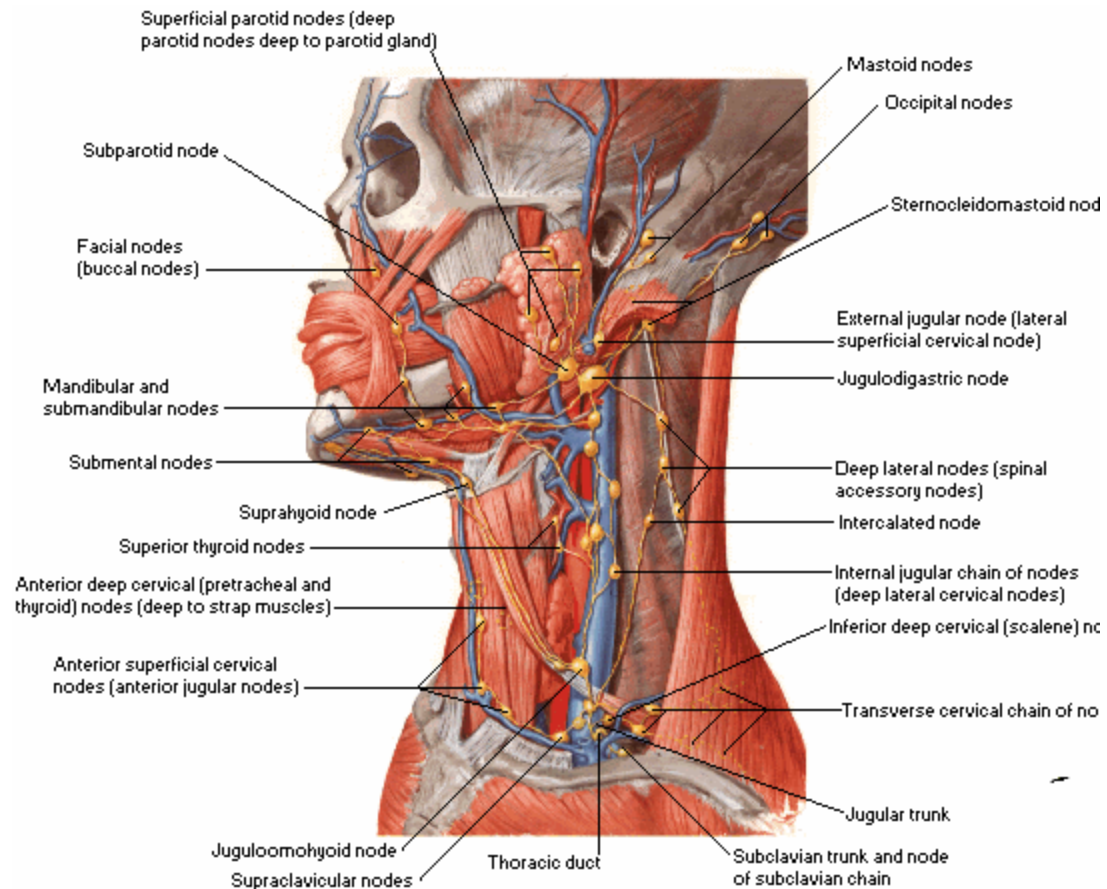
Lateral View



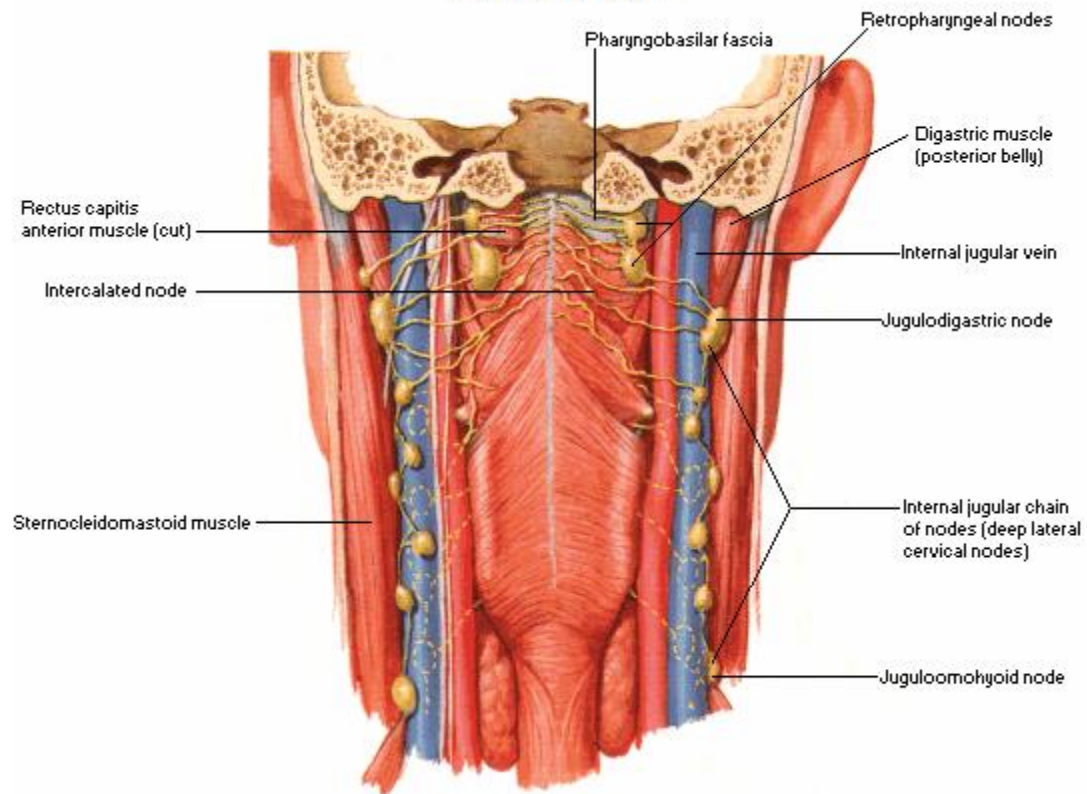




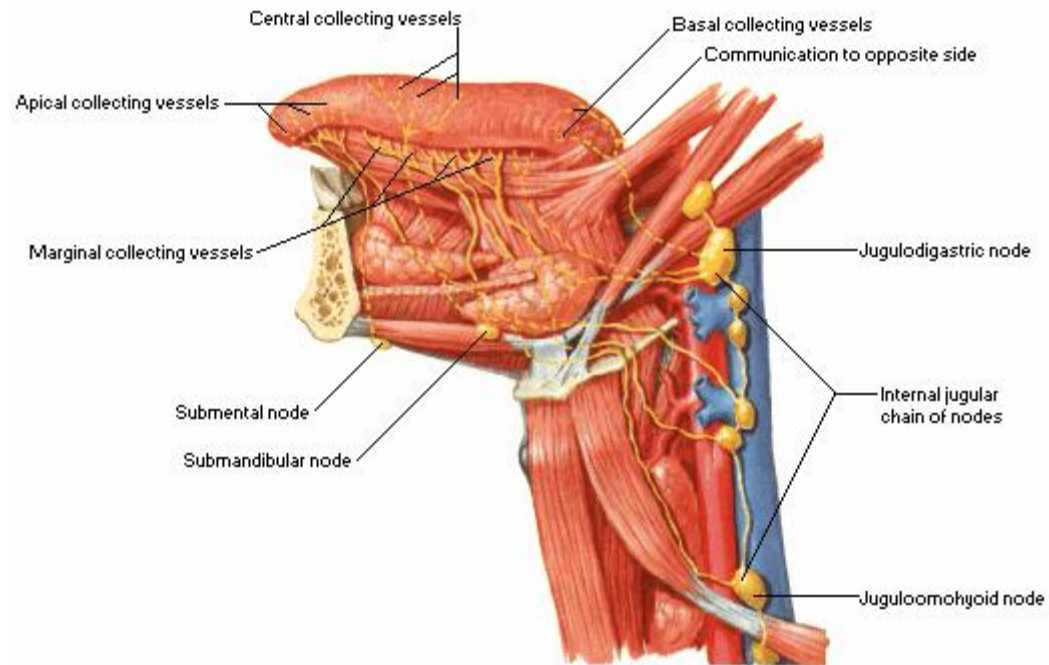


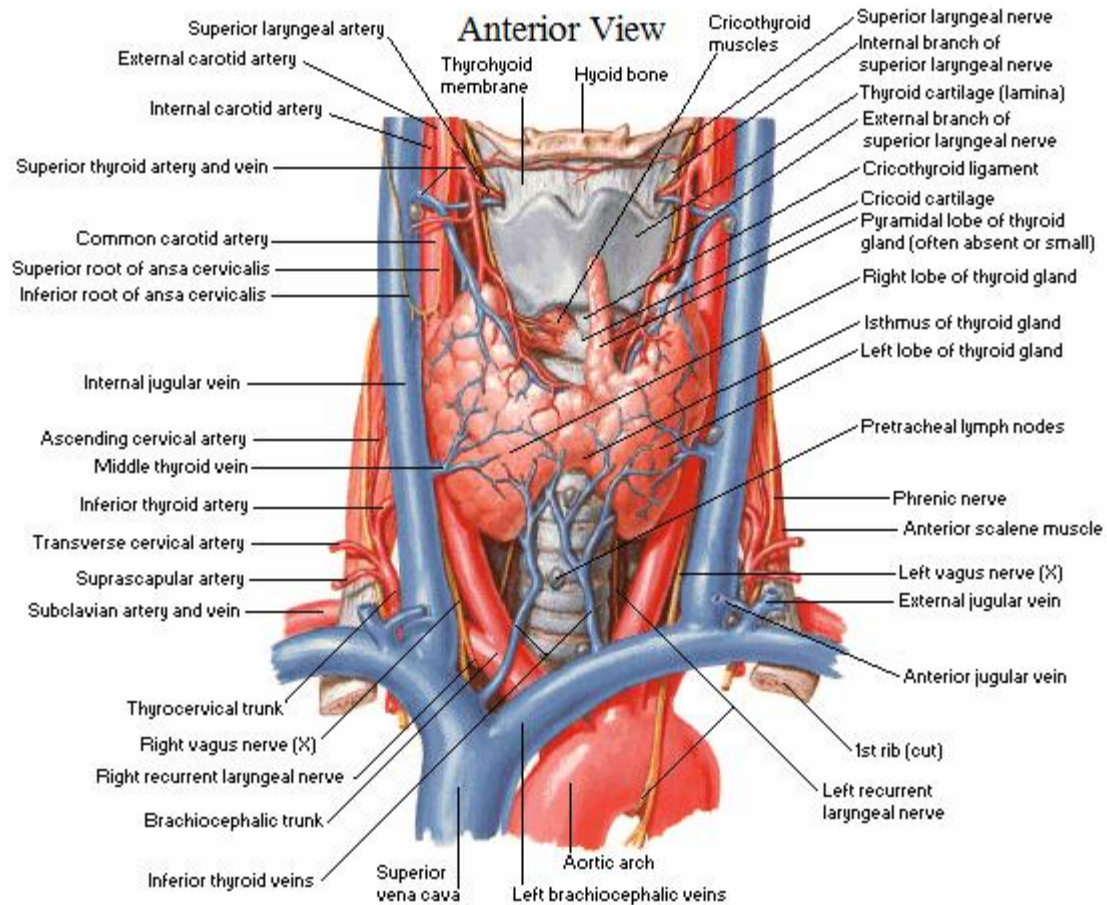


Posterior View

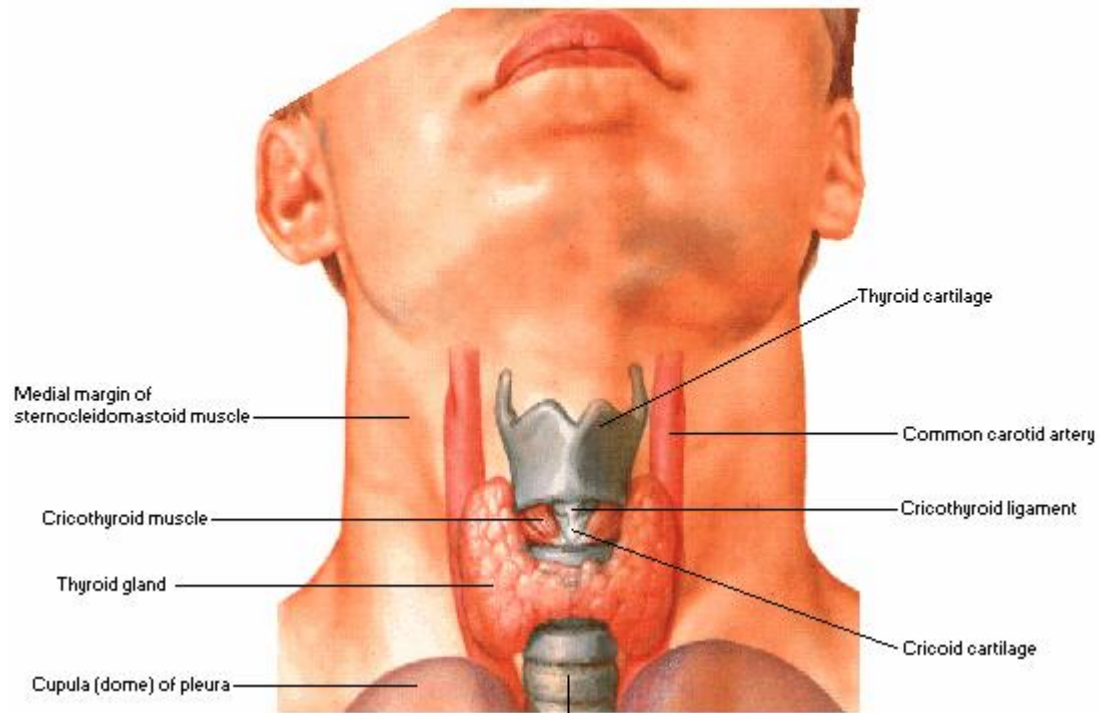


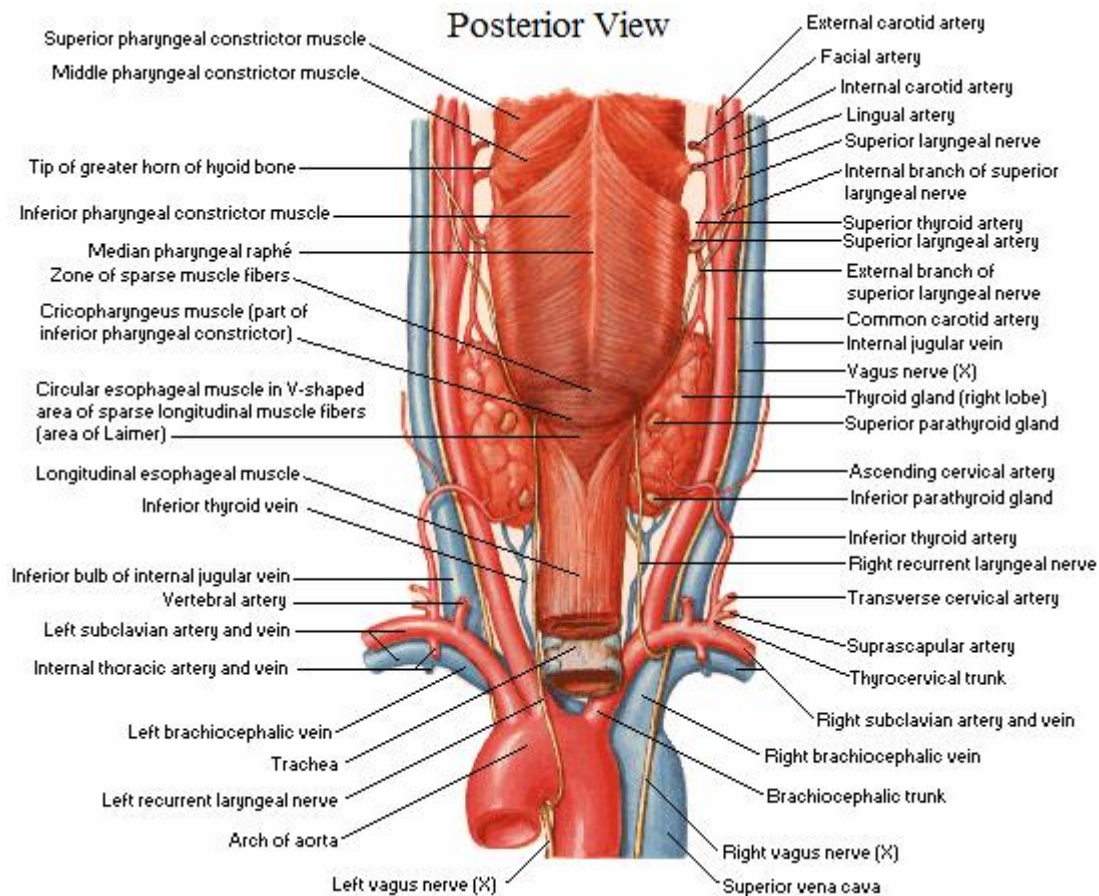
Lateral View



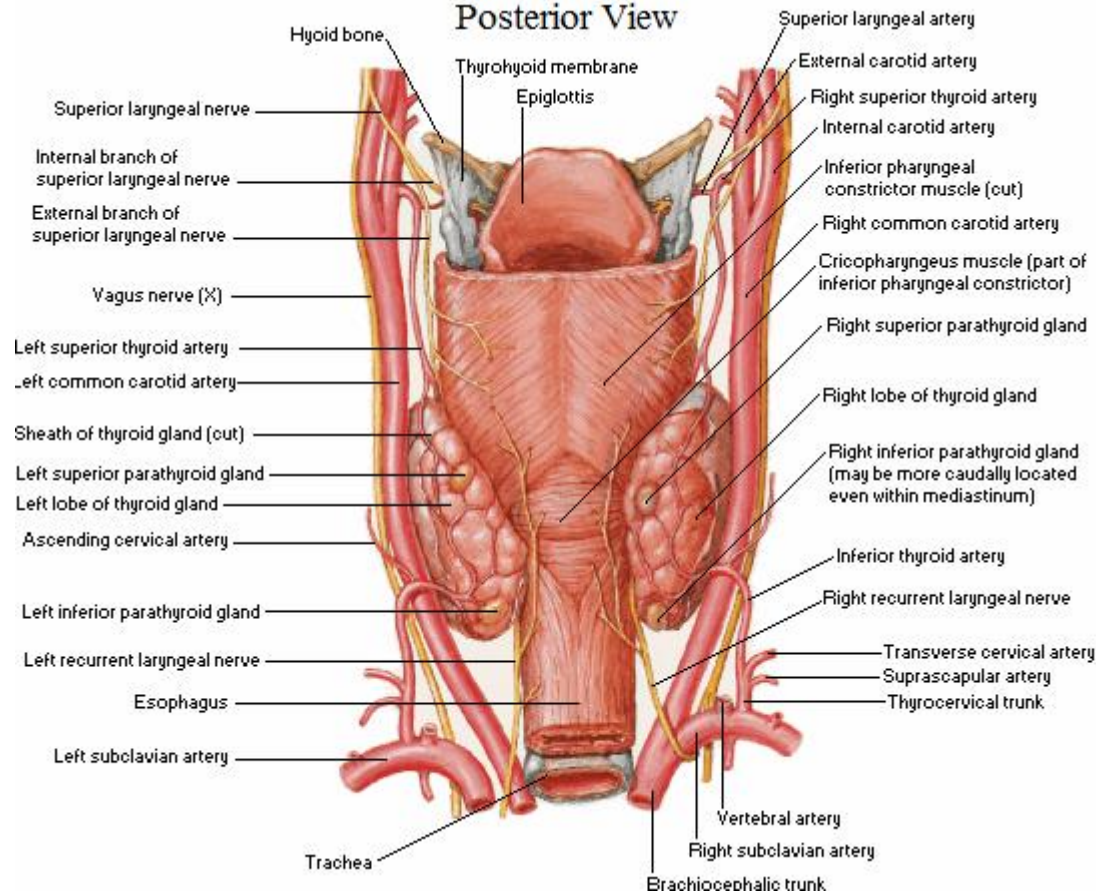


Anterior View

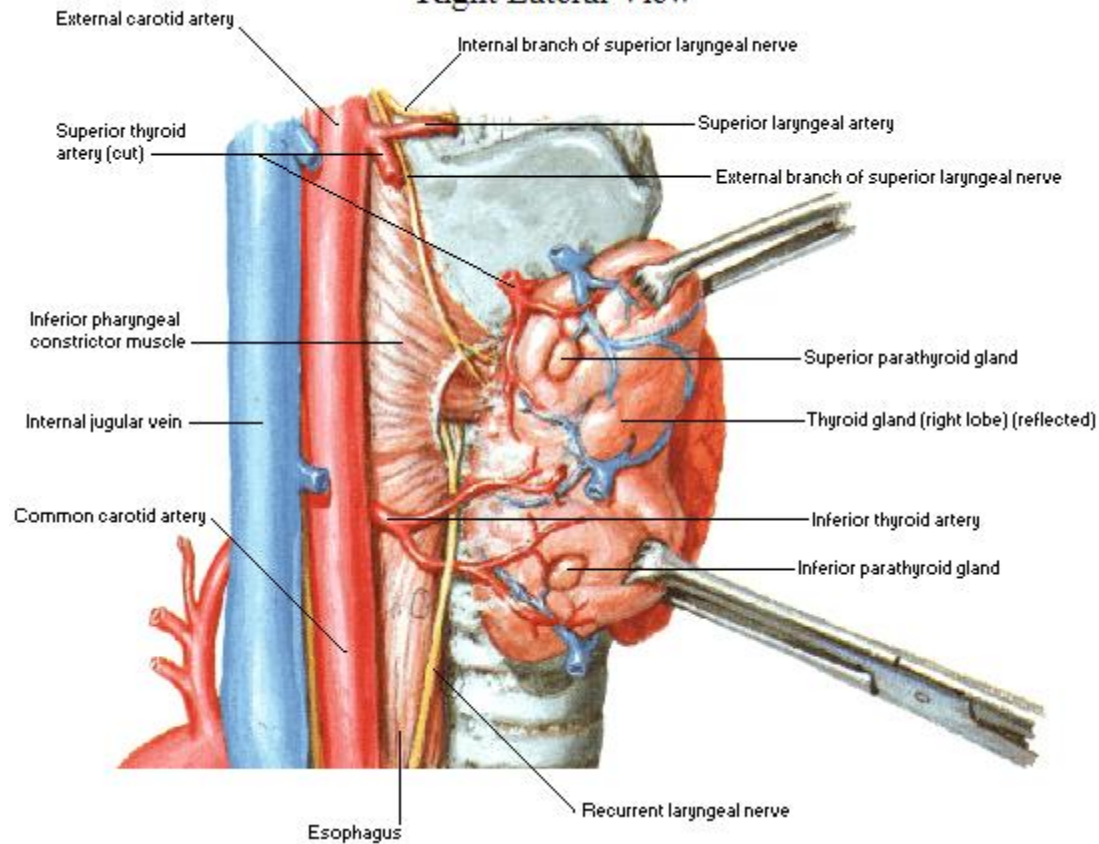




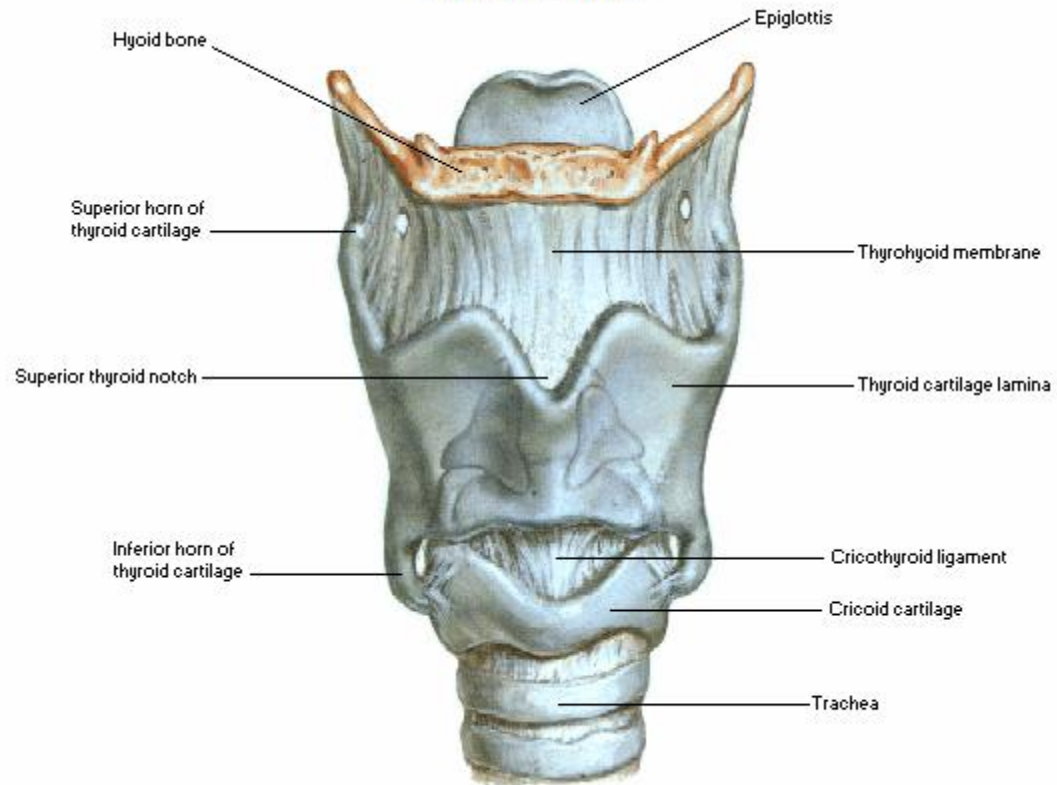
Posterior View



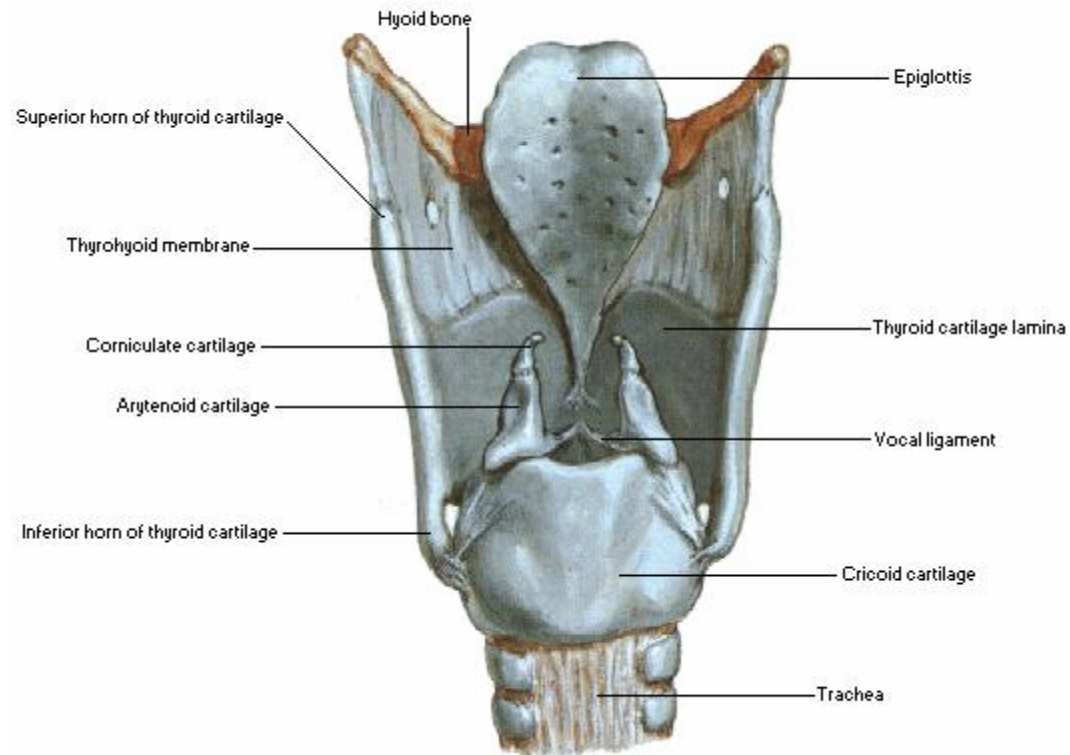
Right Lateral View



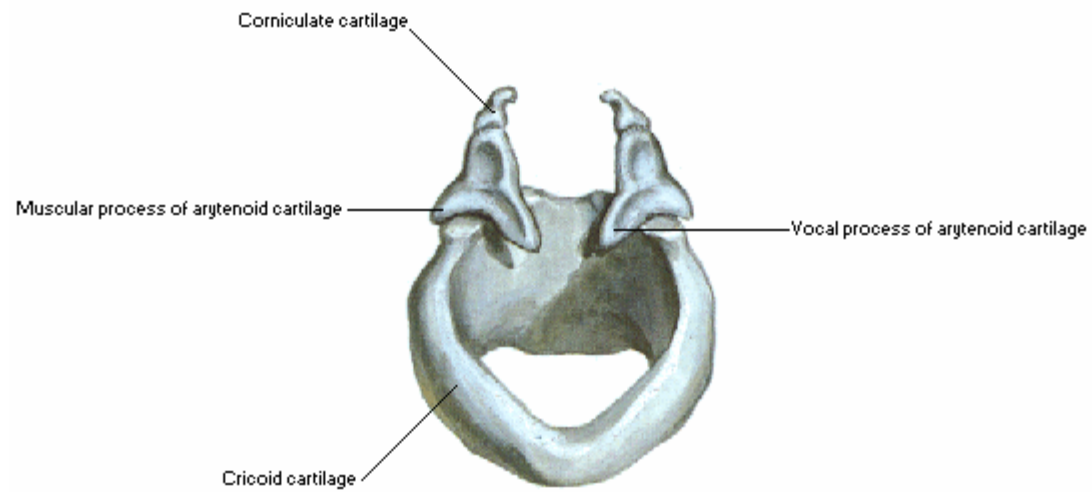
Anterior View



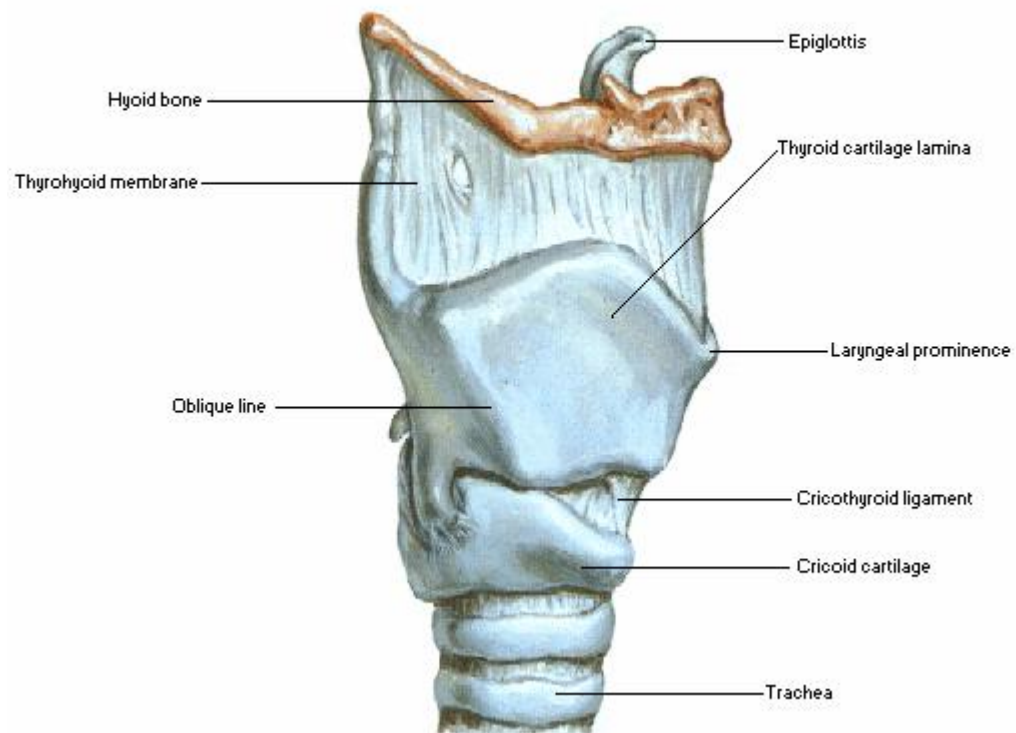
Posterior View



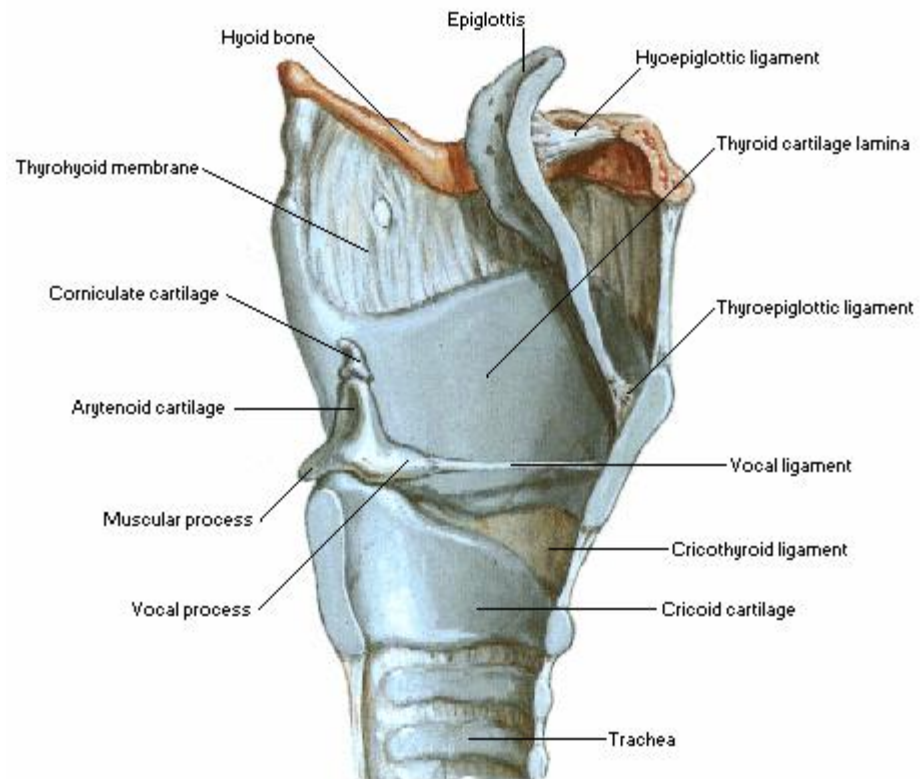
Anterosuperior View



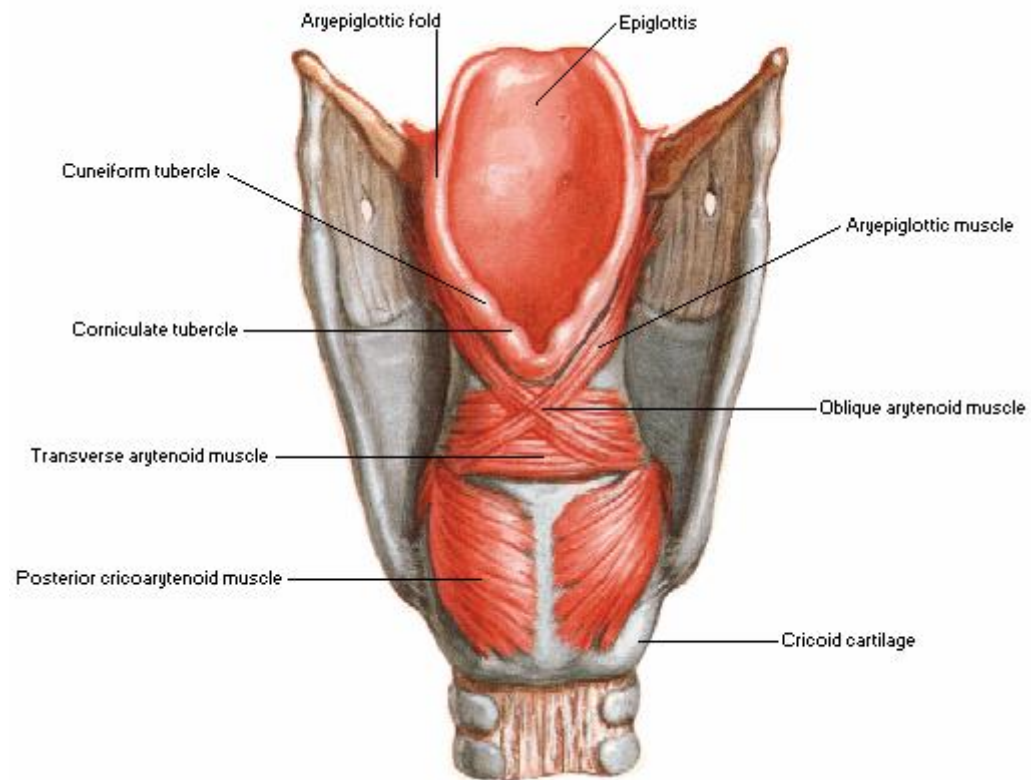
Right Lateral View



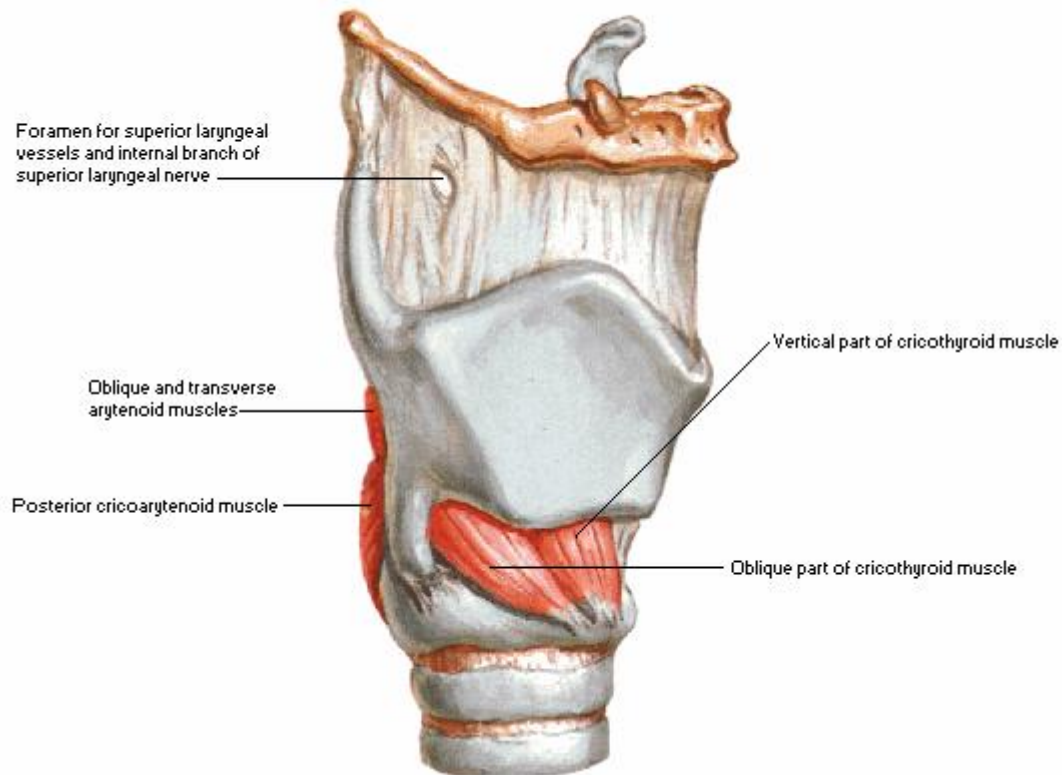
Sagittal Section



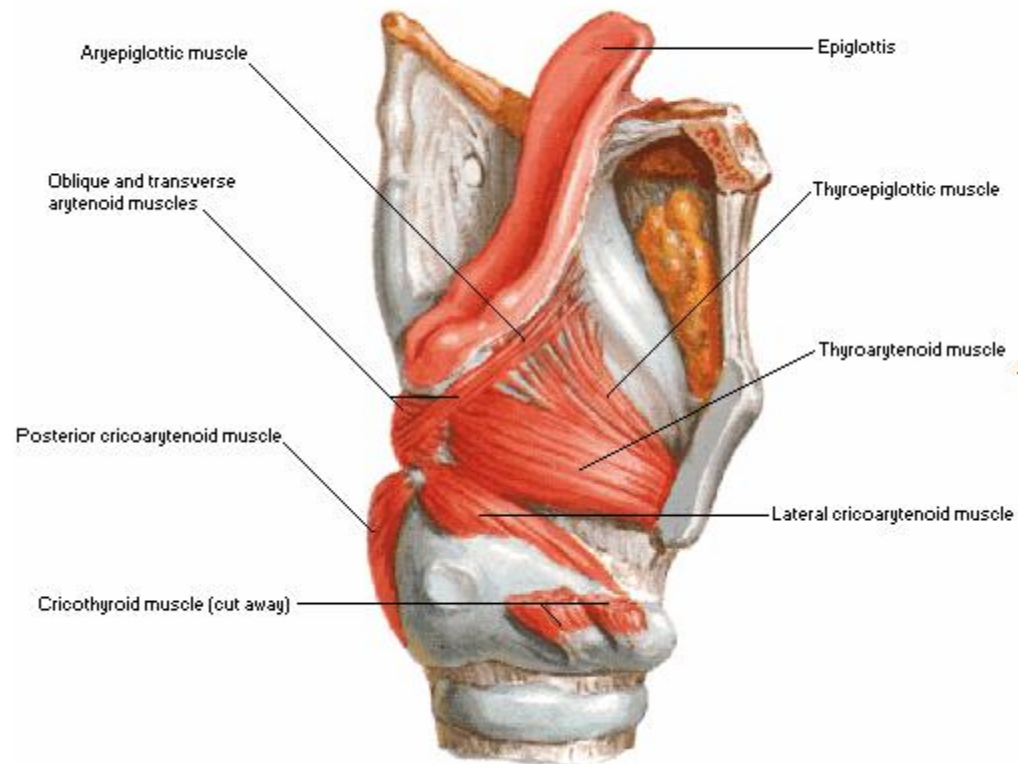
Posterior View



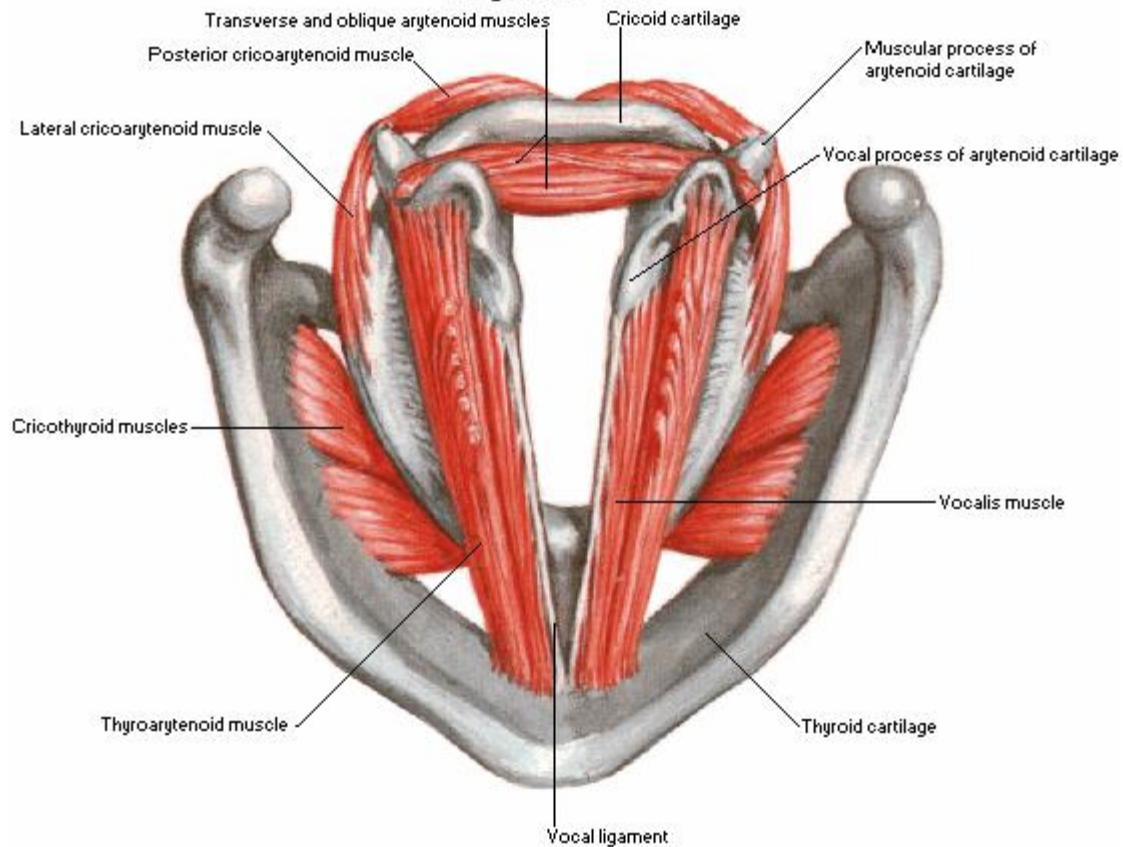
Right Lateral View



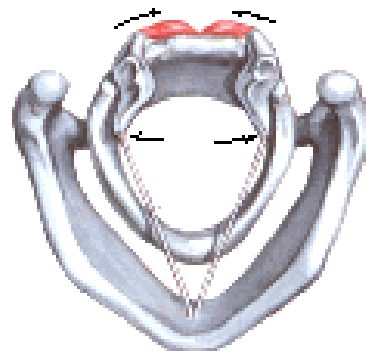
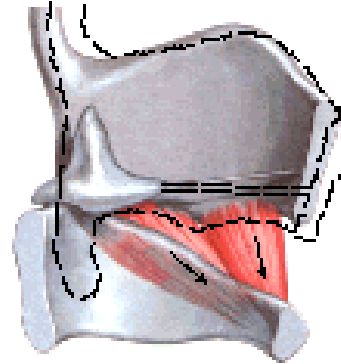
Lateral Dissection



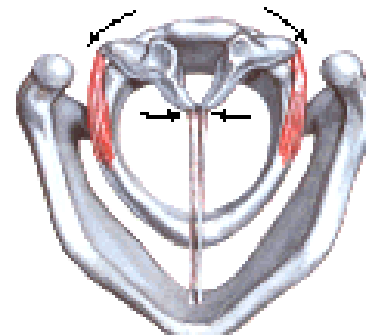
Superior View



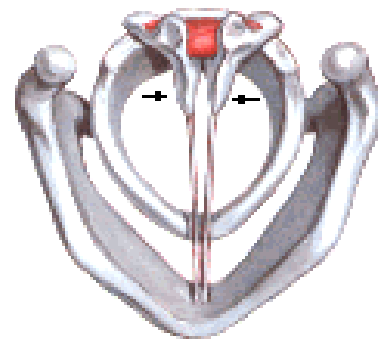
Action of cricothyroid muscles:
Lengthening (tension) of vocal folds



Action of posterior cricoarytenoid muscles:
Abduction of vocal folds



Action of lateral cricoarytenoid muscles:
Adduction of vocal folds

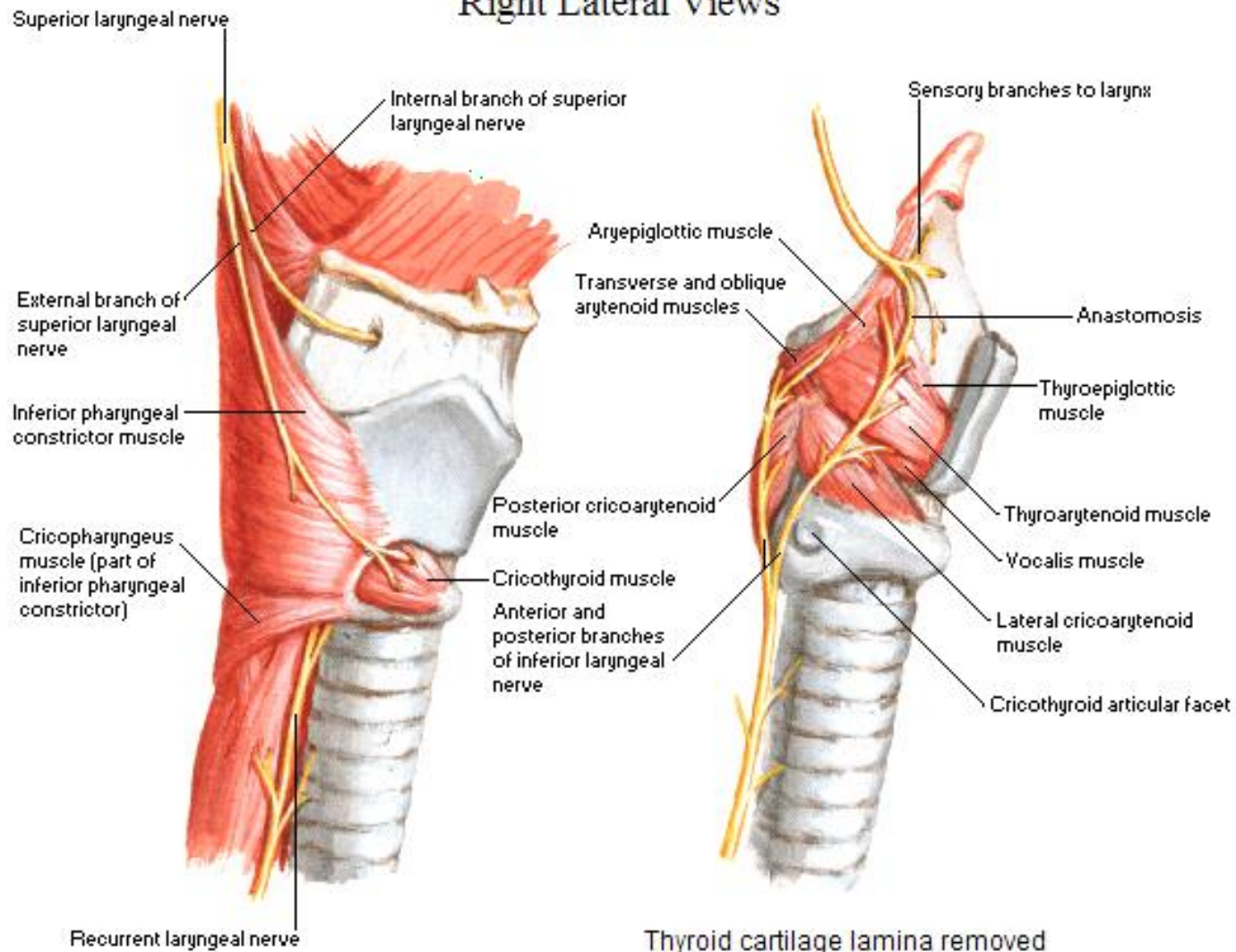


Action of arytenoid muscle:
Adduction of vocal folds

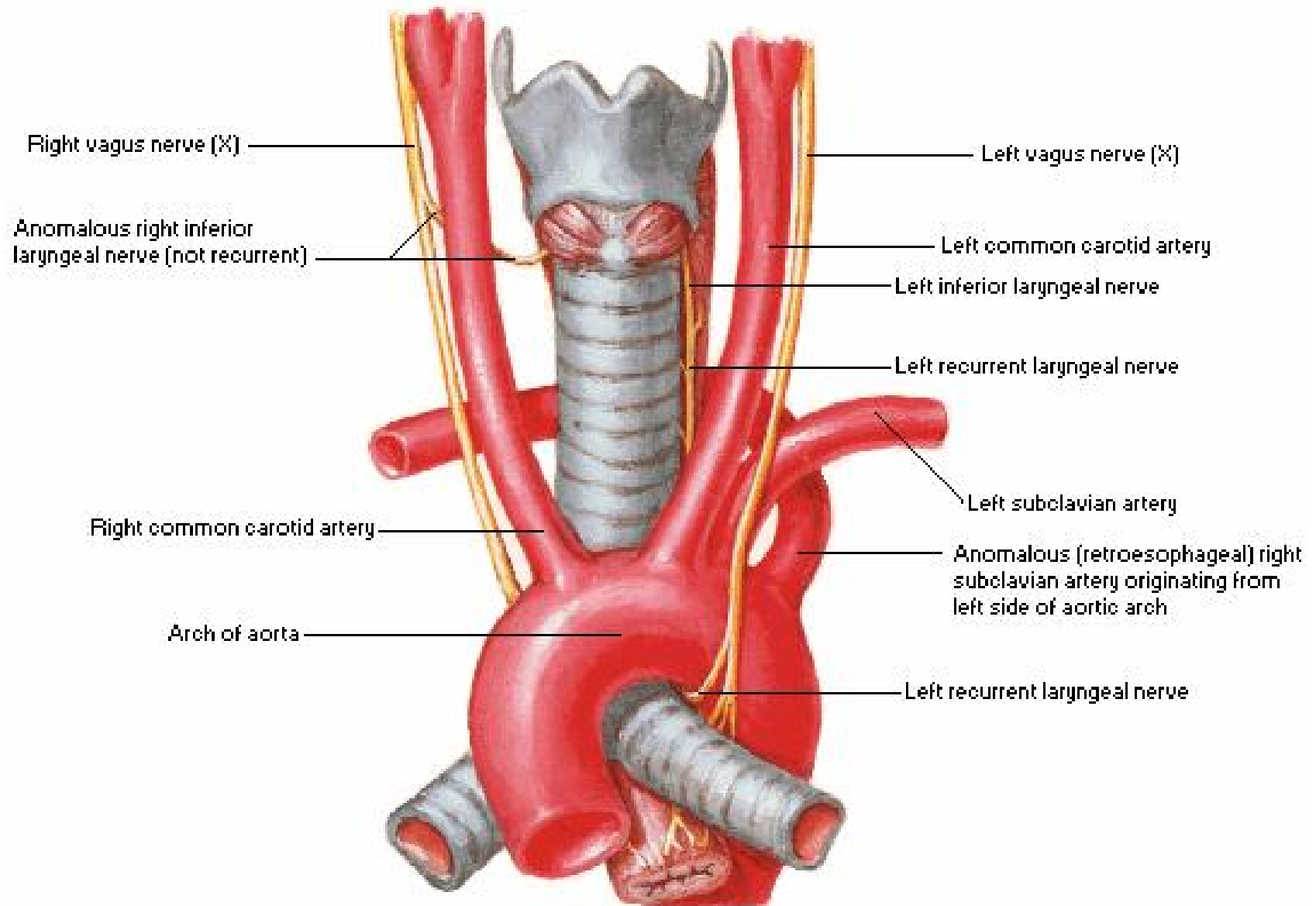


Action of vocalis and thyroarytenoid muscles:
Shortening (relaxation) of vocal folds

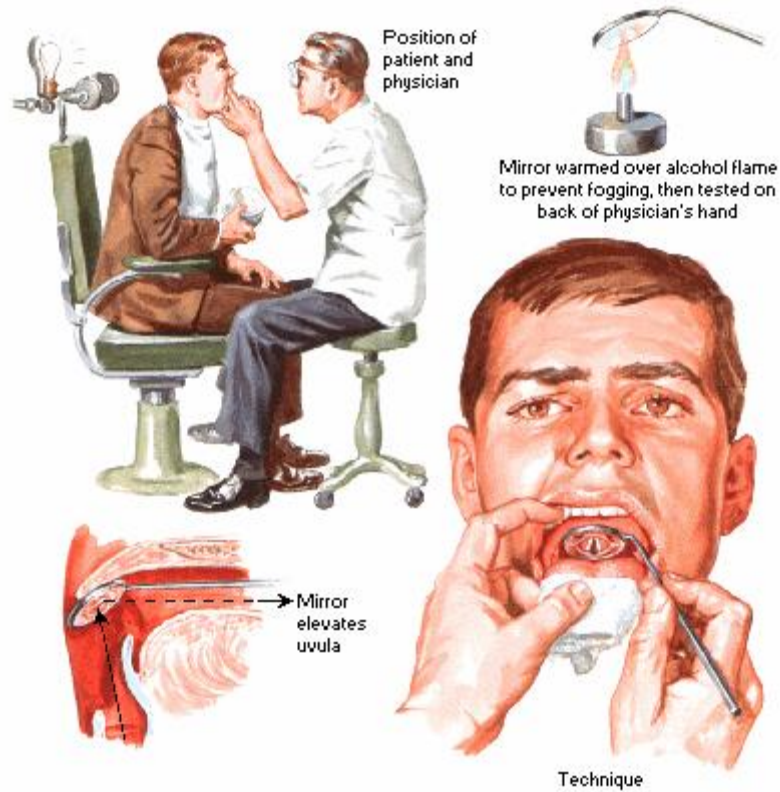
Right Lateral Views



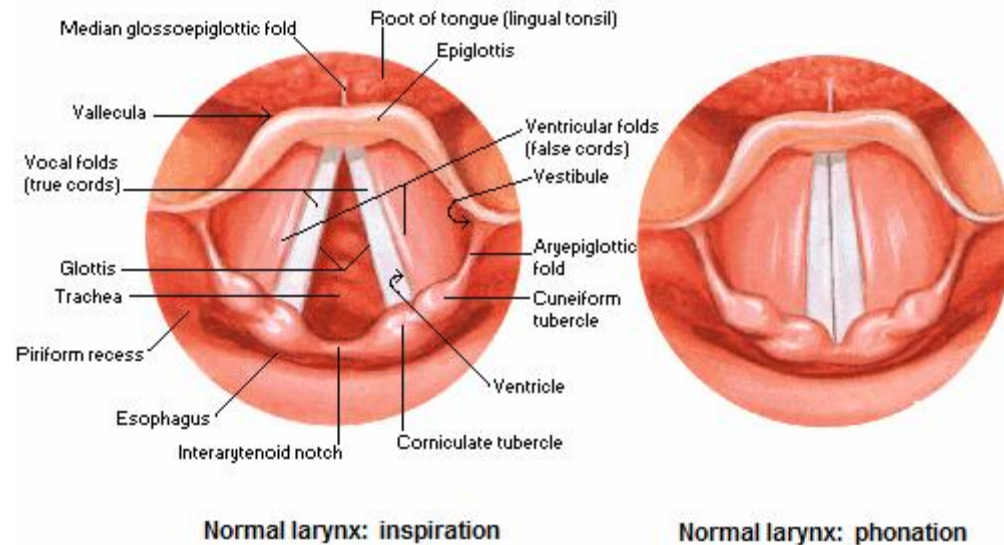
Anterior View



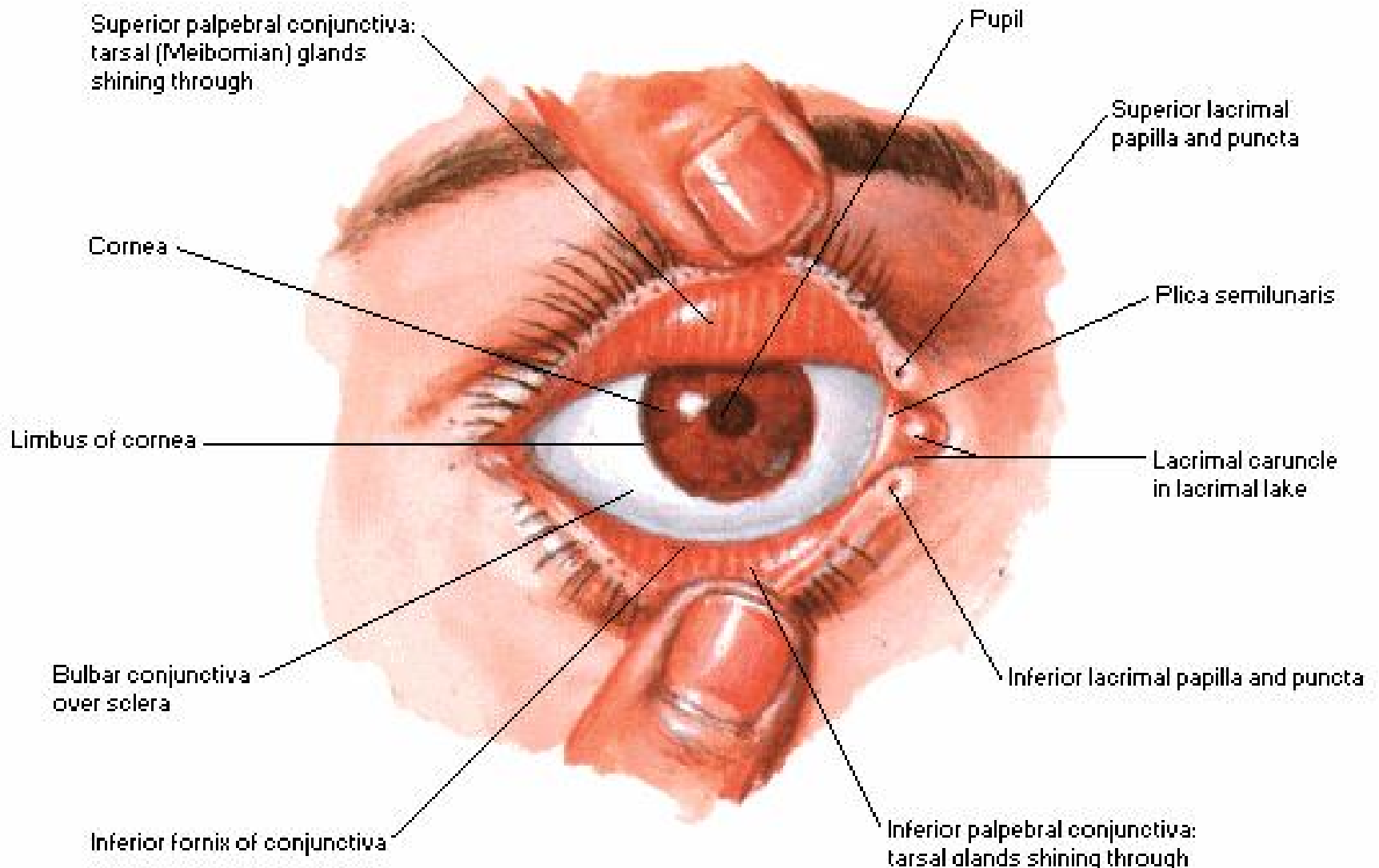
Technique



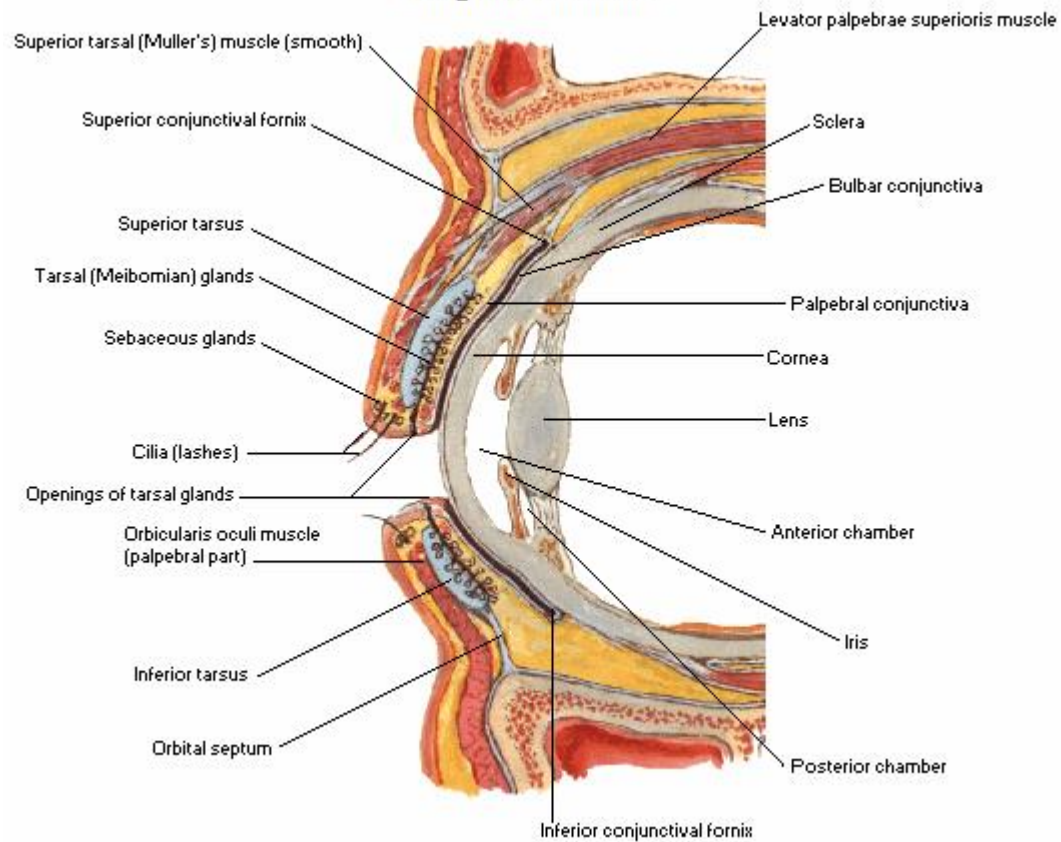
Views during Inspiration and Phonation



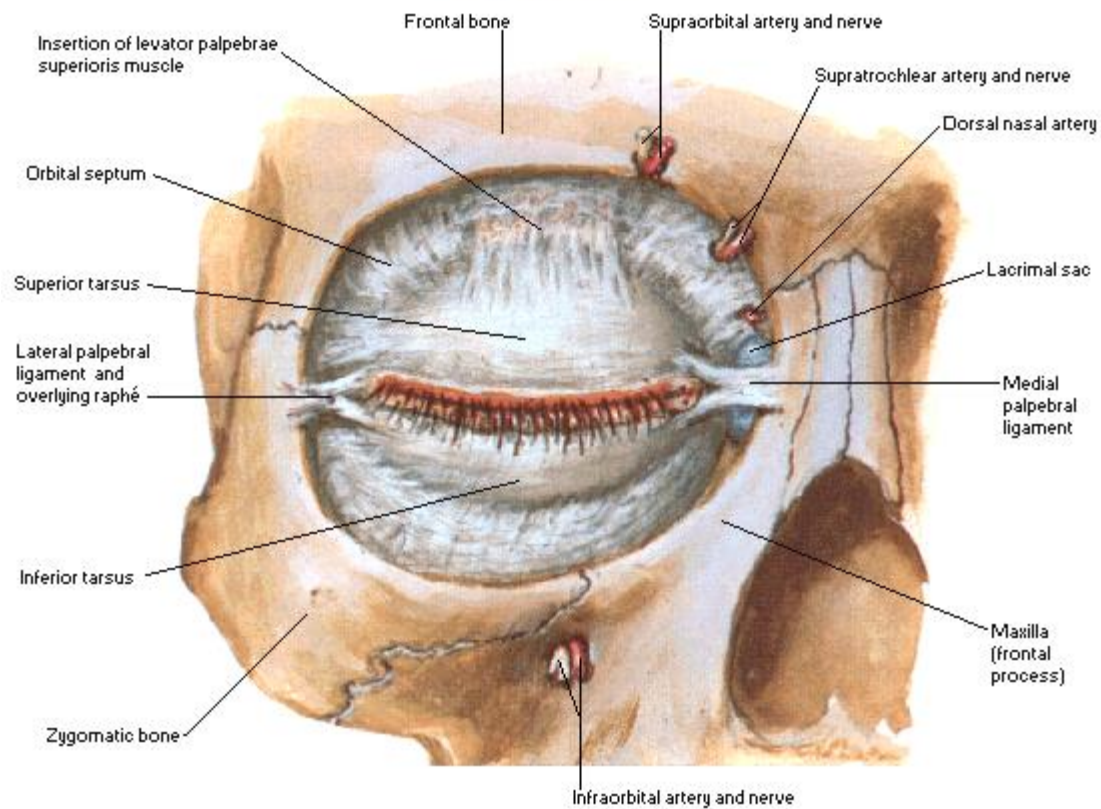
Anterior View

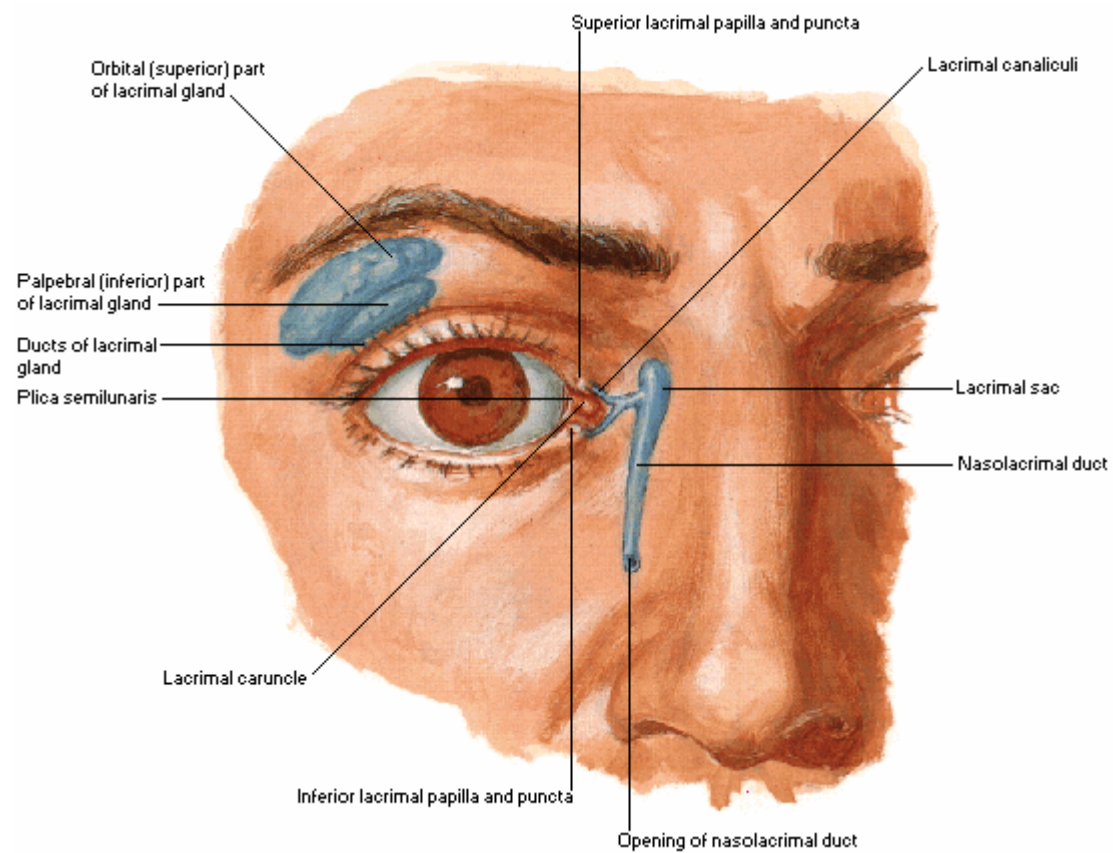


Sagittal Section

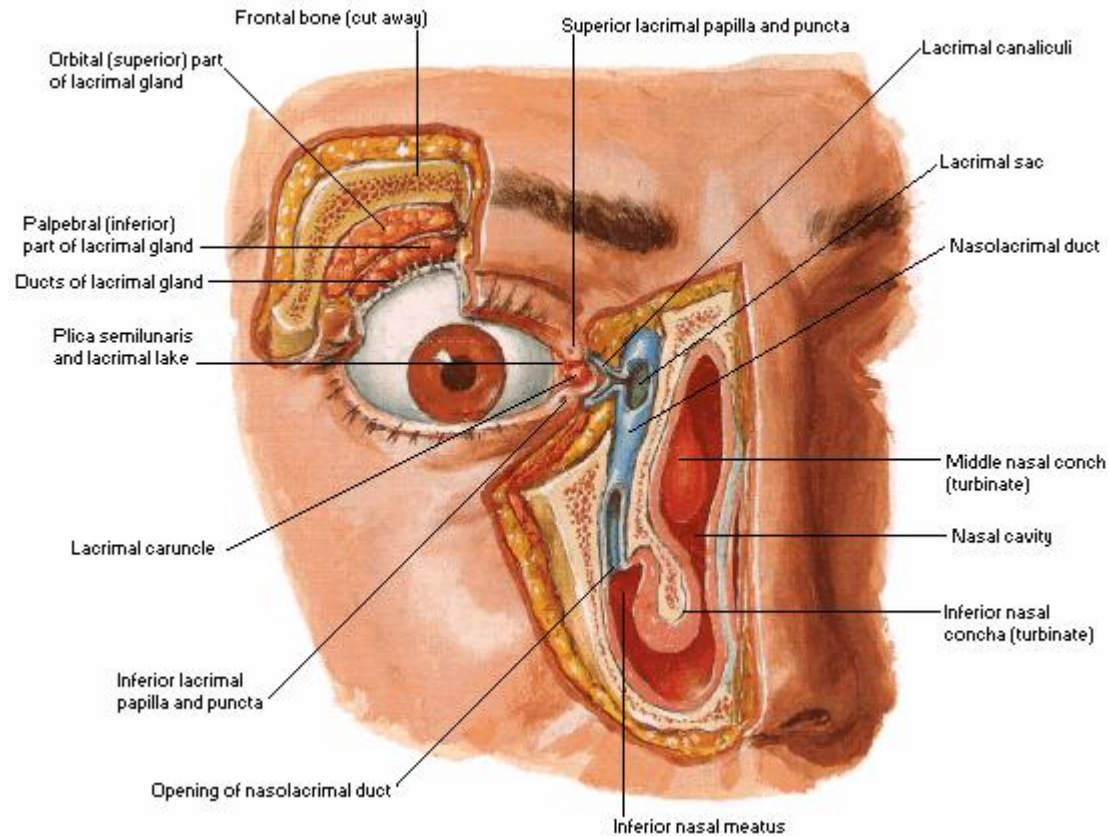


Anterior View

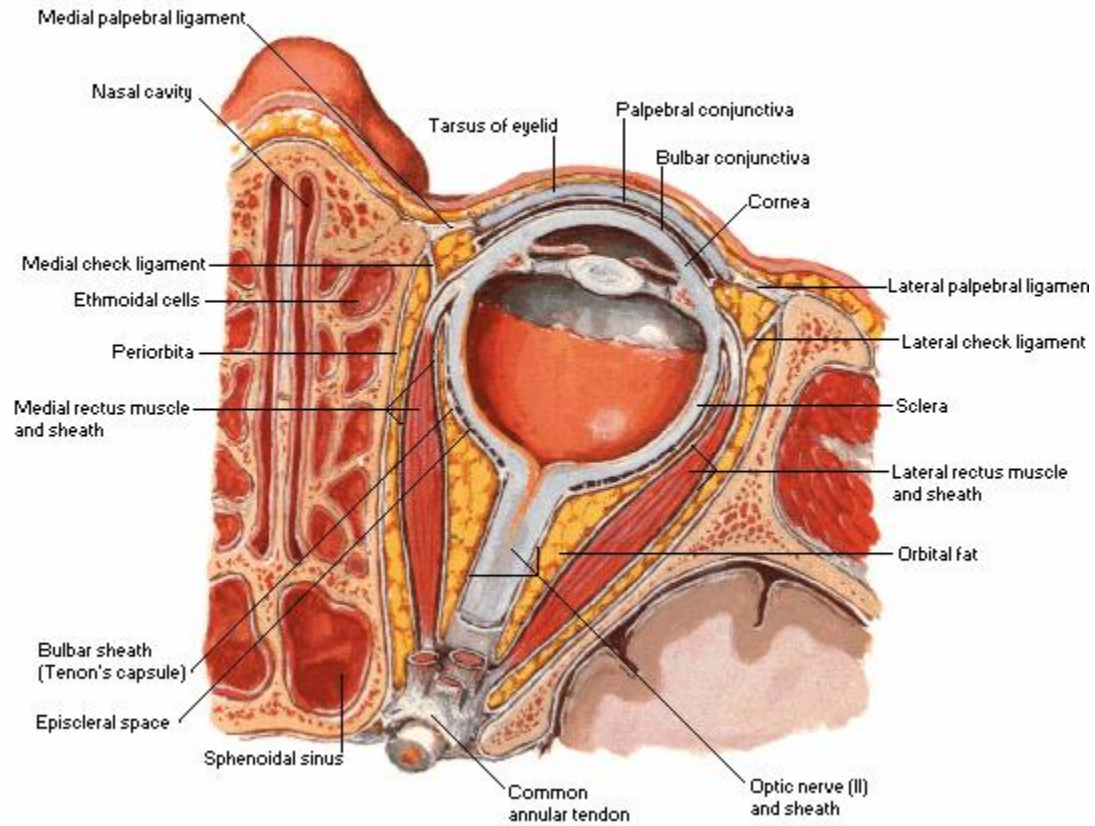




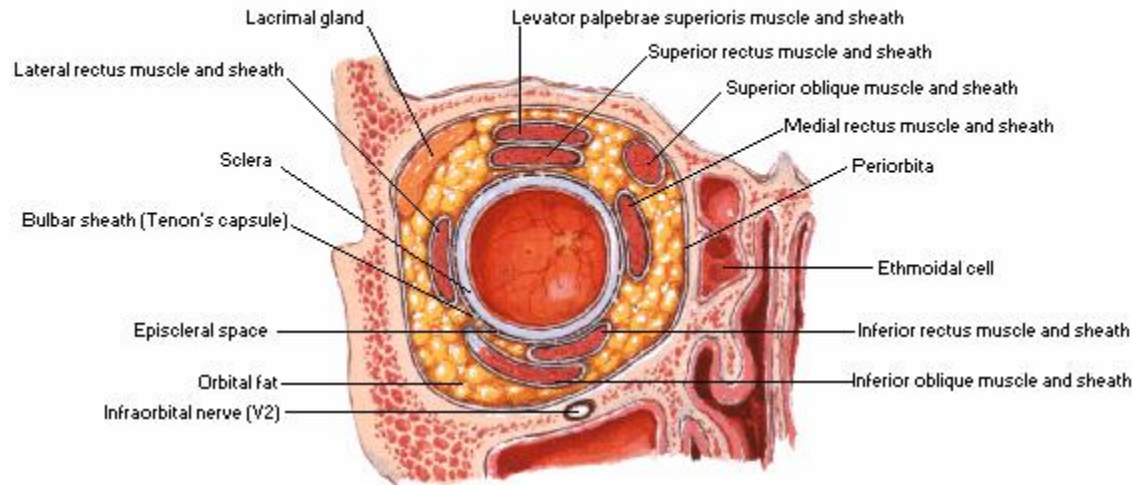
Dissection



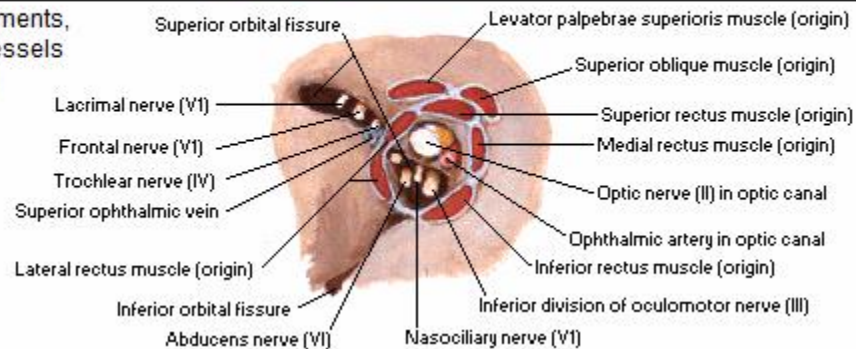
Horizontal Section



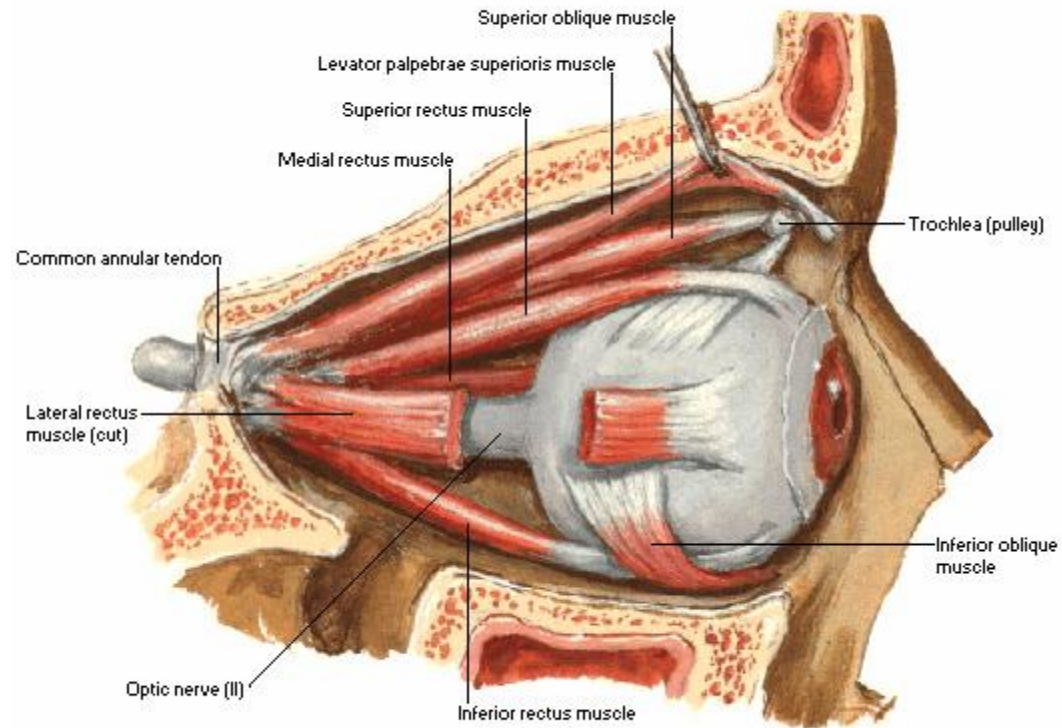
Frontal Section and Entering Structures



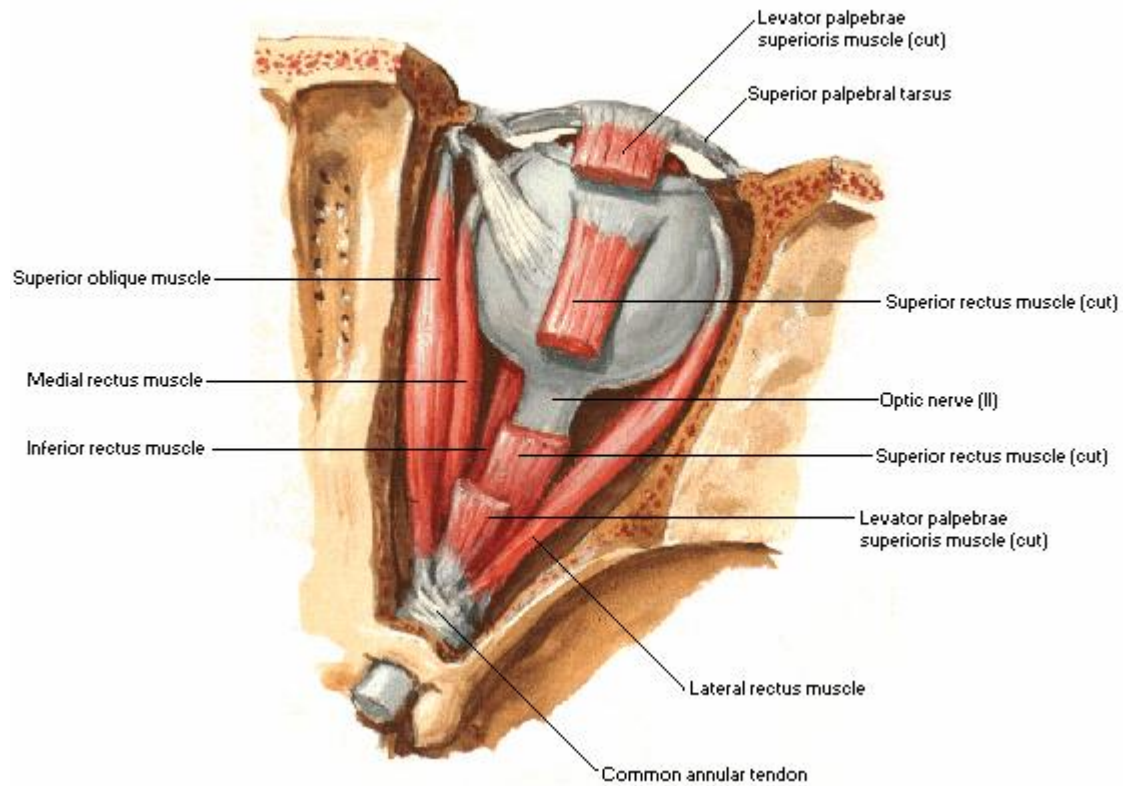
Muscle attachments, nerves and vessels entering orbit



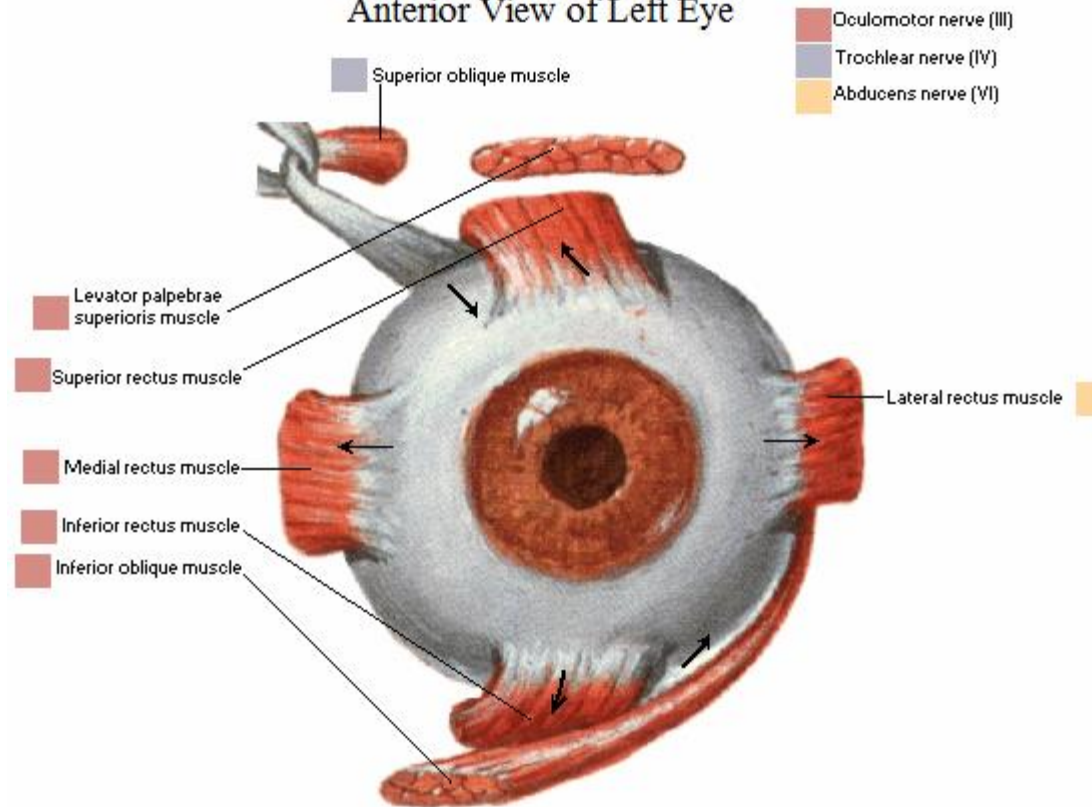
Right Lateral View



Superior View

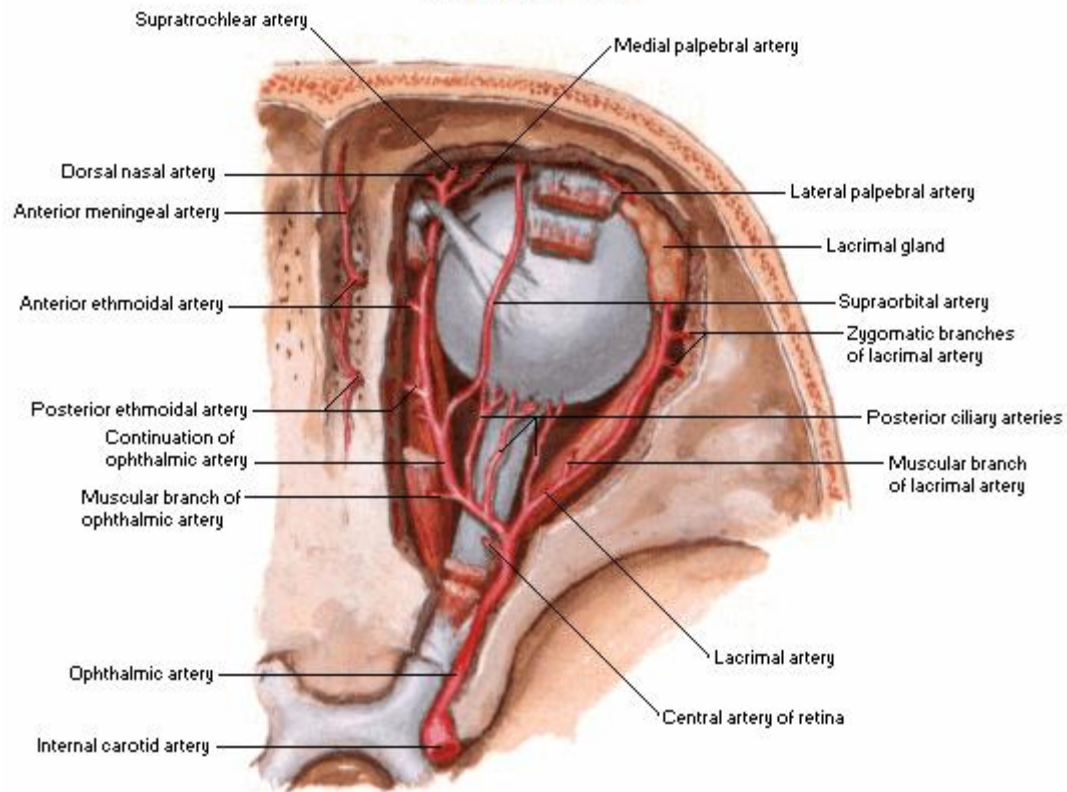


Anterior View of Left Eye

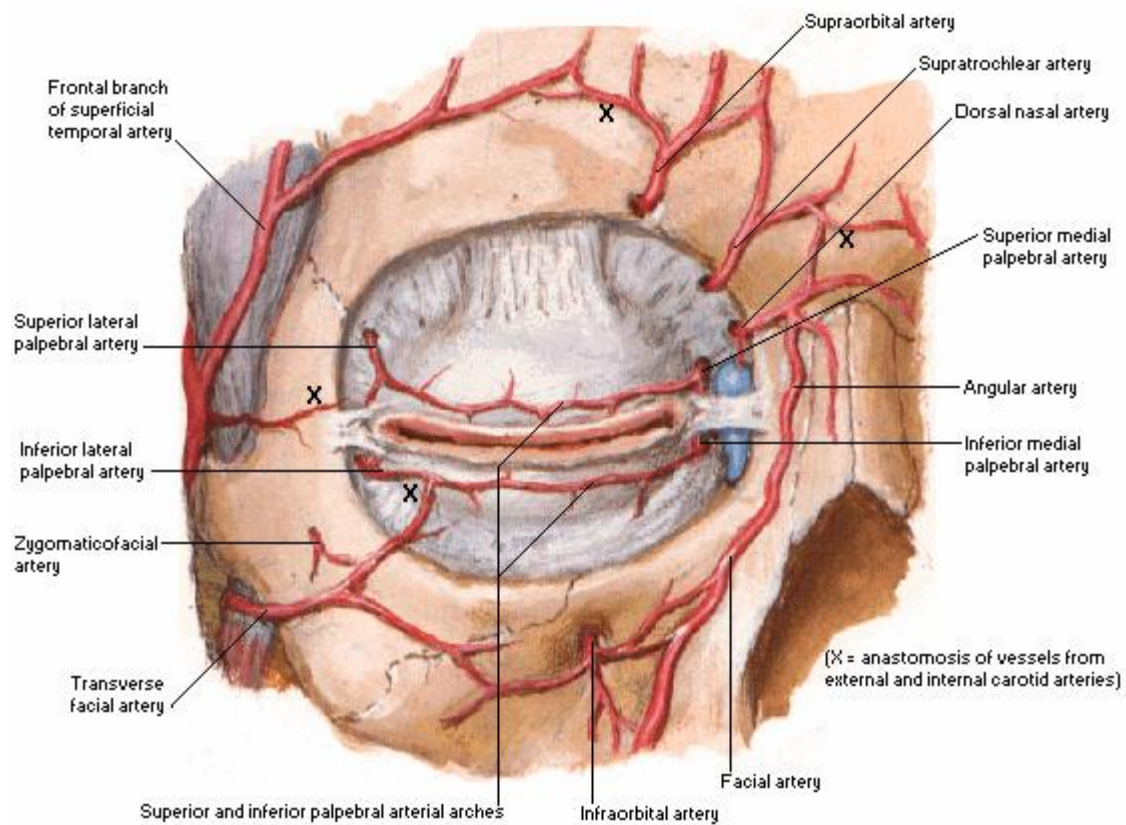


Note: arrows indicate direction of eye movement produced by each muscle

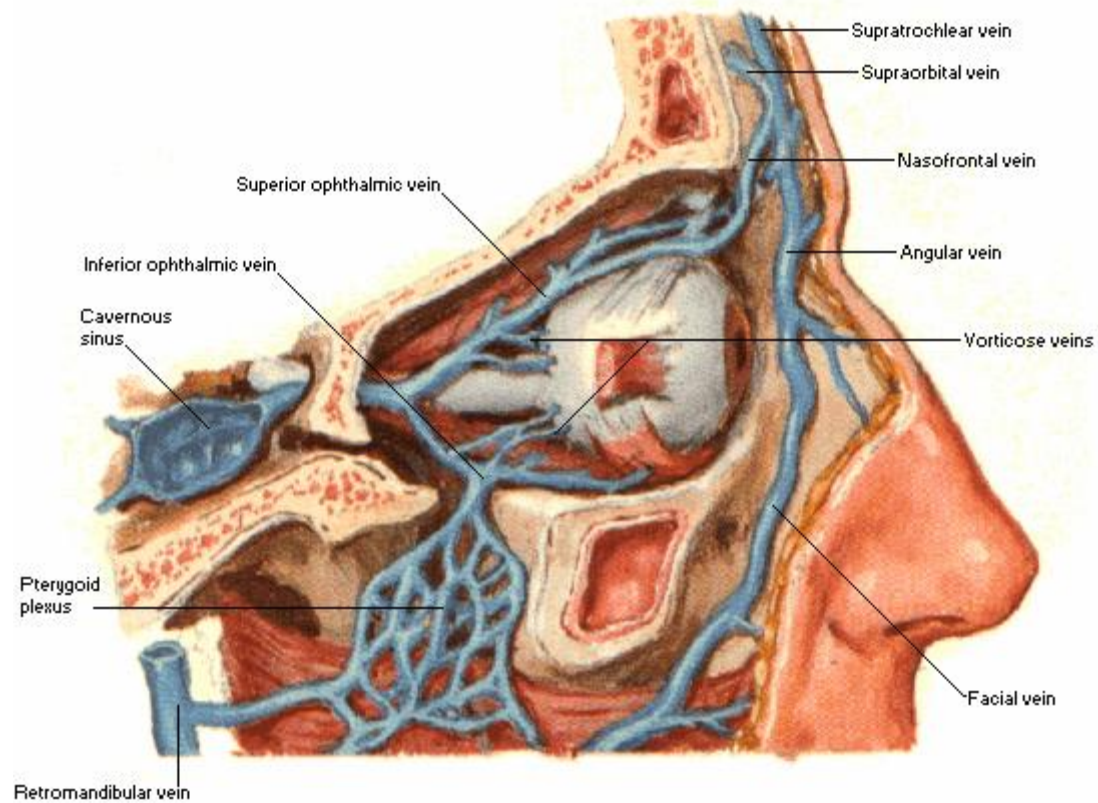
Superior View

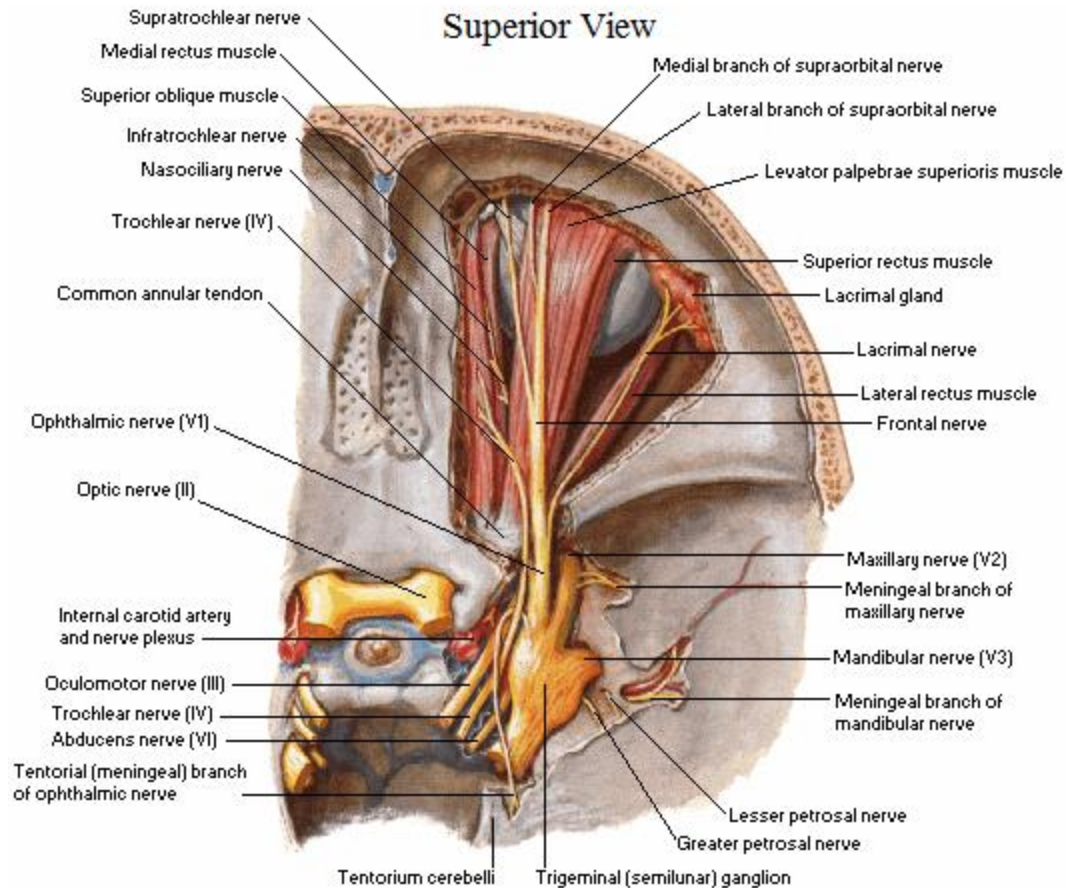


Anterior View

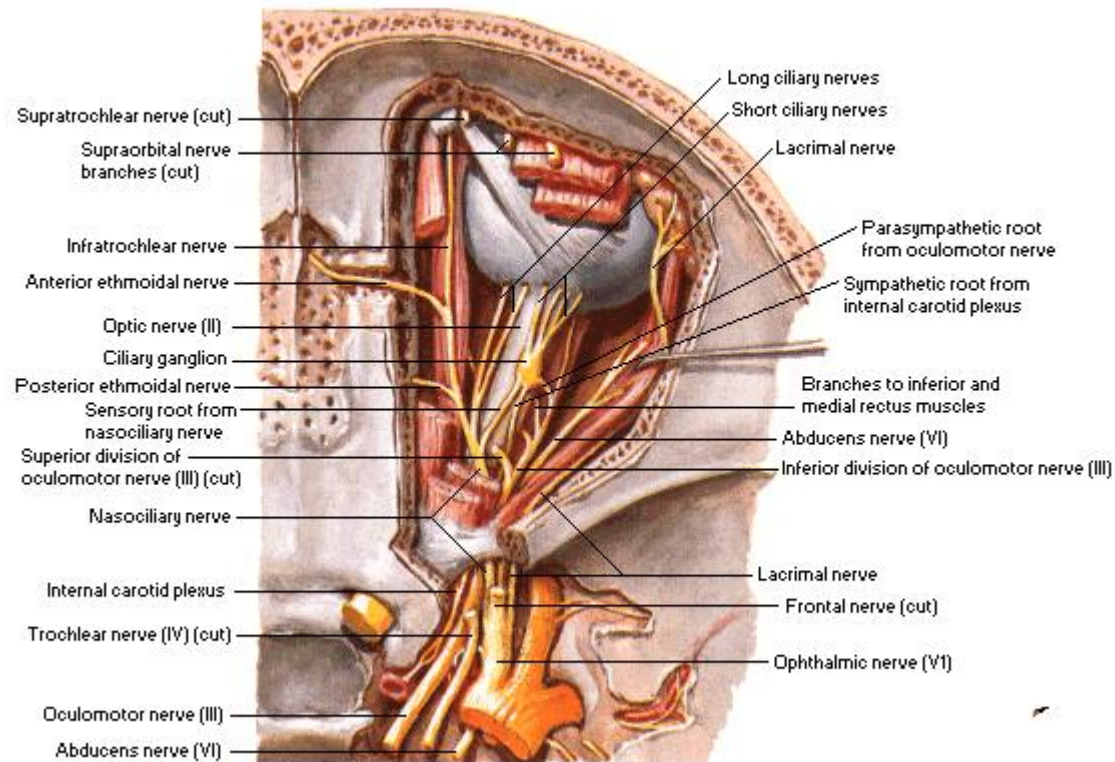


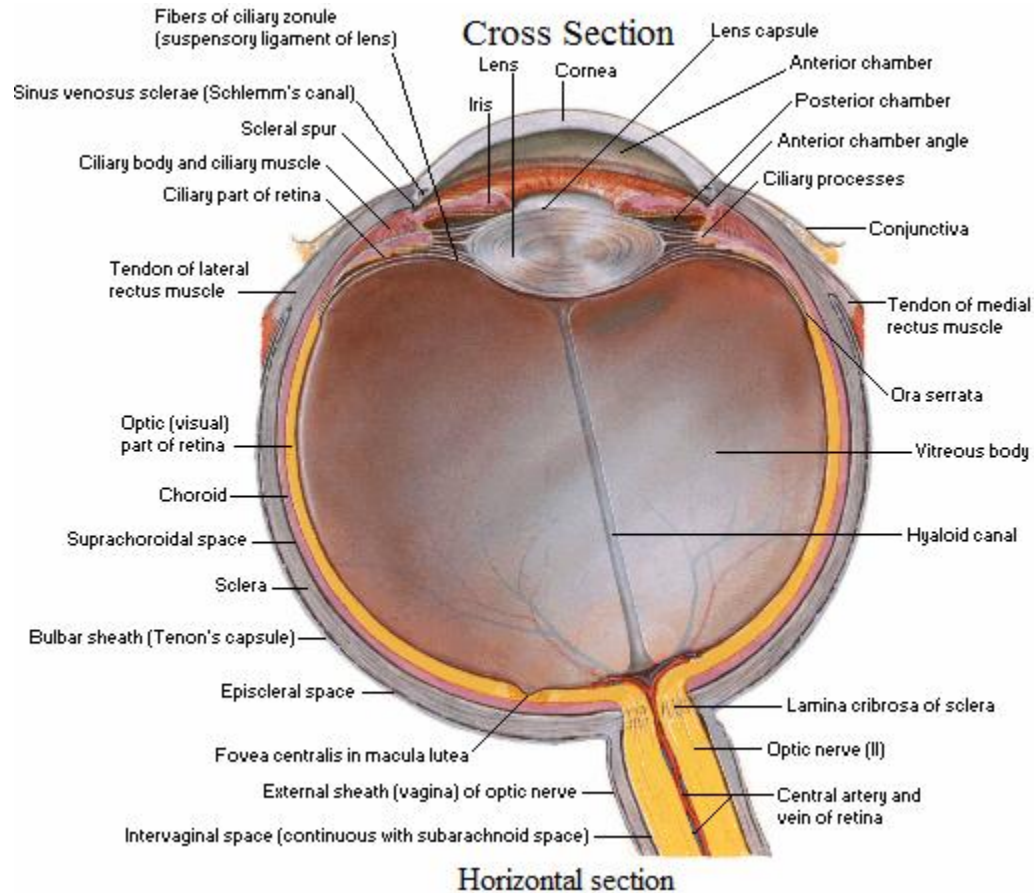
Lateral View



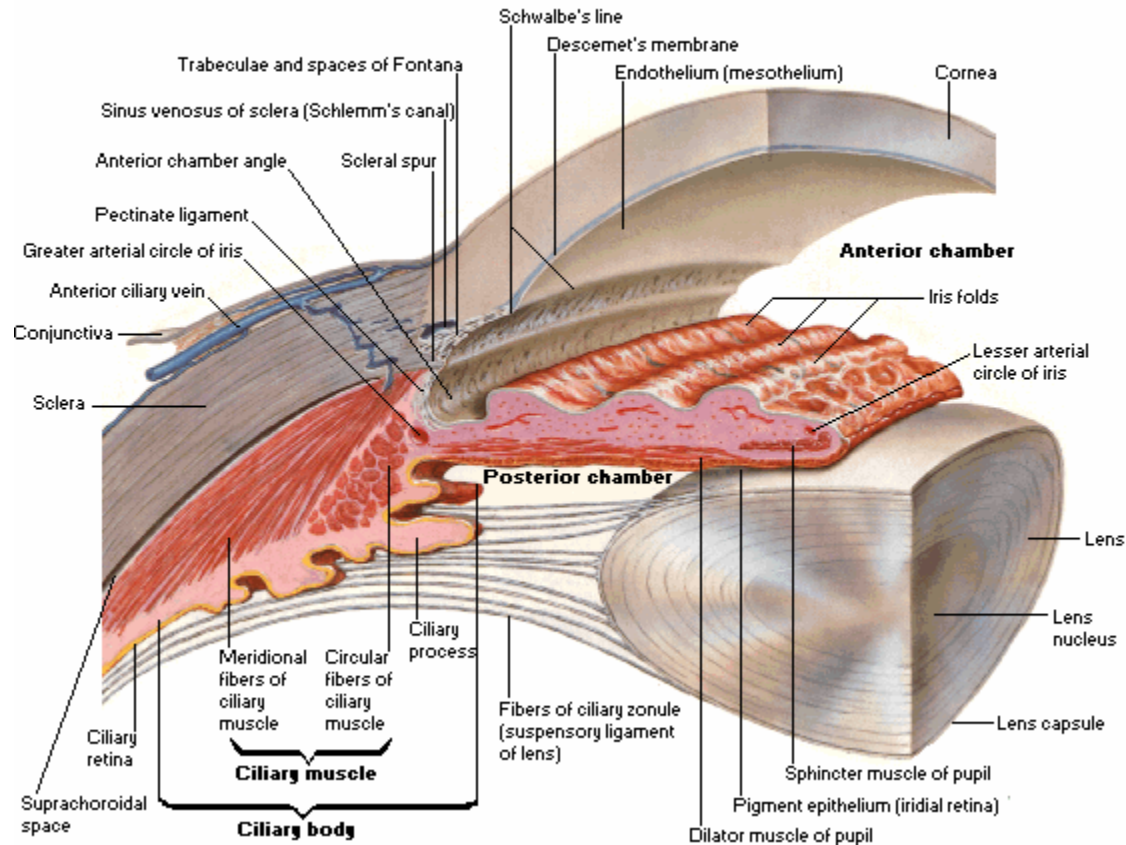


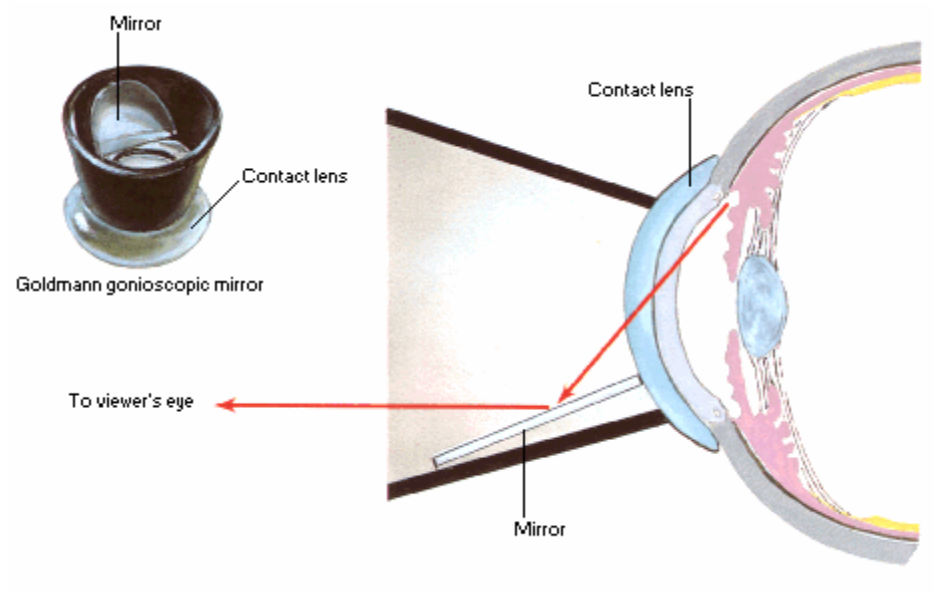
Superior View





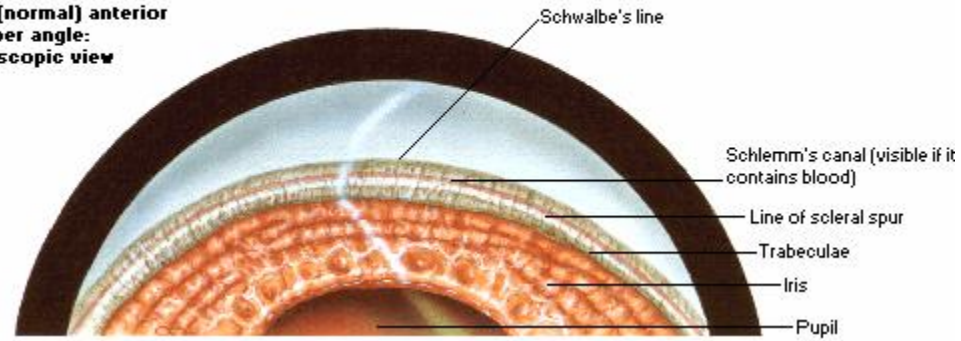
Note: for clarity only single plane of zonular fibers shown;
actually fibers surround entire circumference of lens



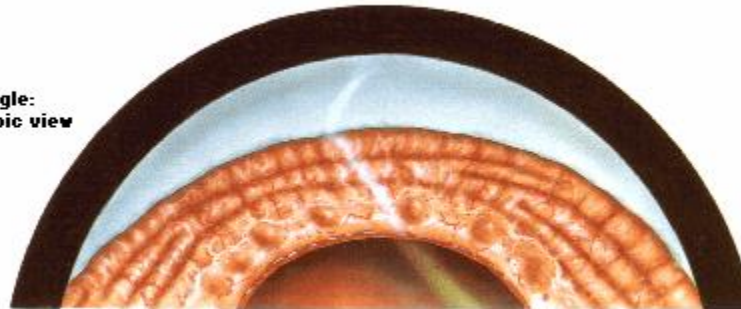


Gonioscopic Views

**Open (normal) anterior
chamber angle:
gonioscopic view**

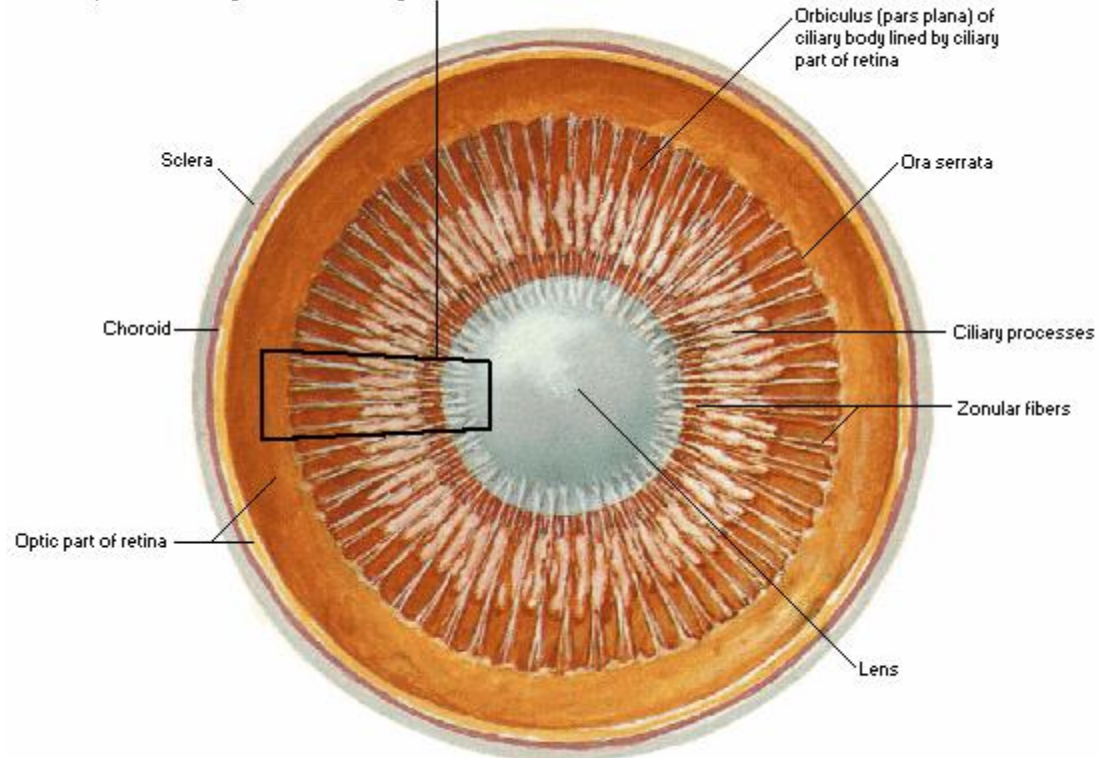


**Closed angle:
gonioscopic view**



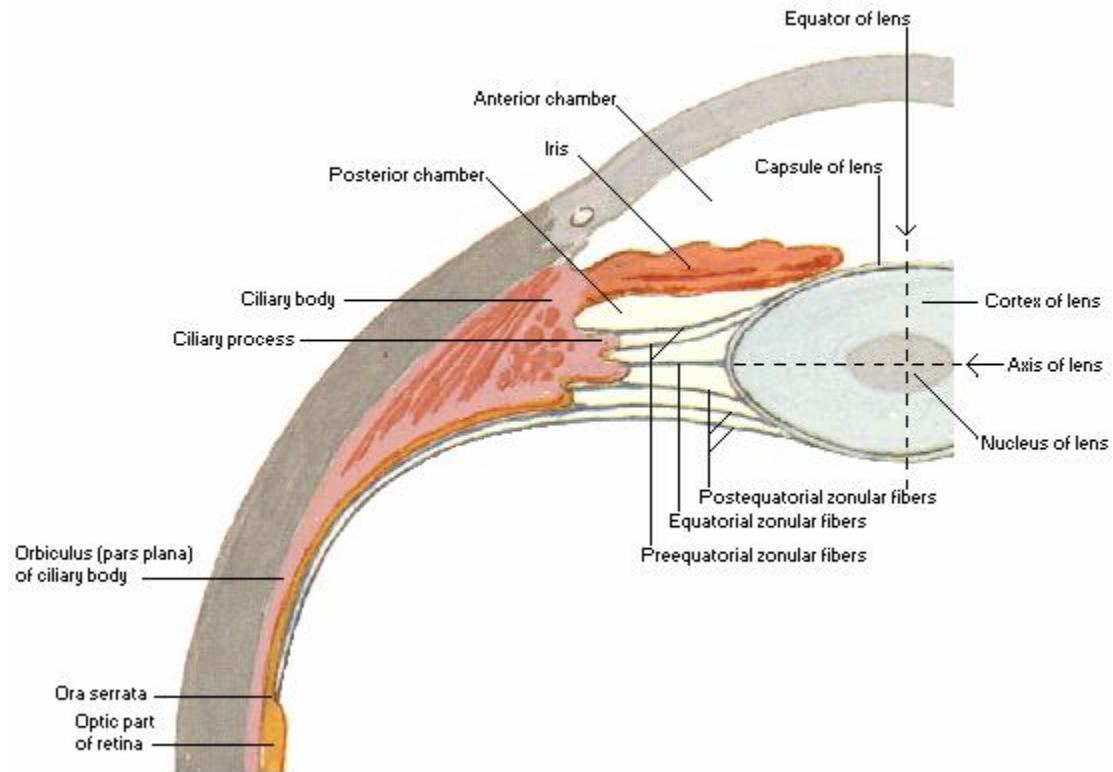
Section in Frontal Plane

Note: See plate 85C for magnification of this segment.

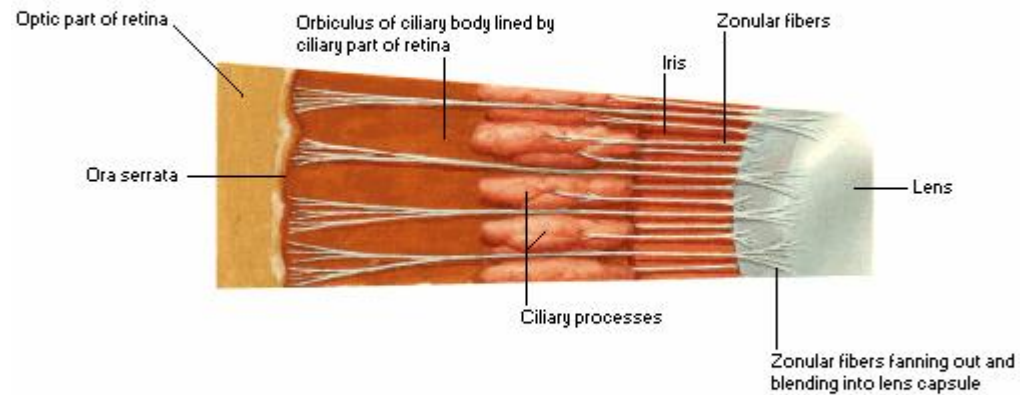


Bulb of eye: anterior segment viewed from behind

Horizontal Section

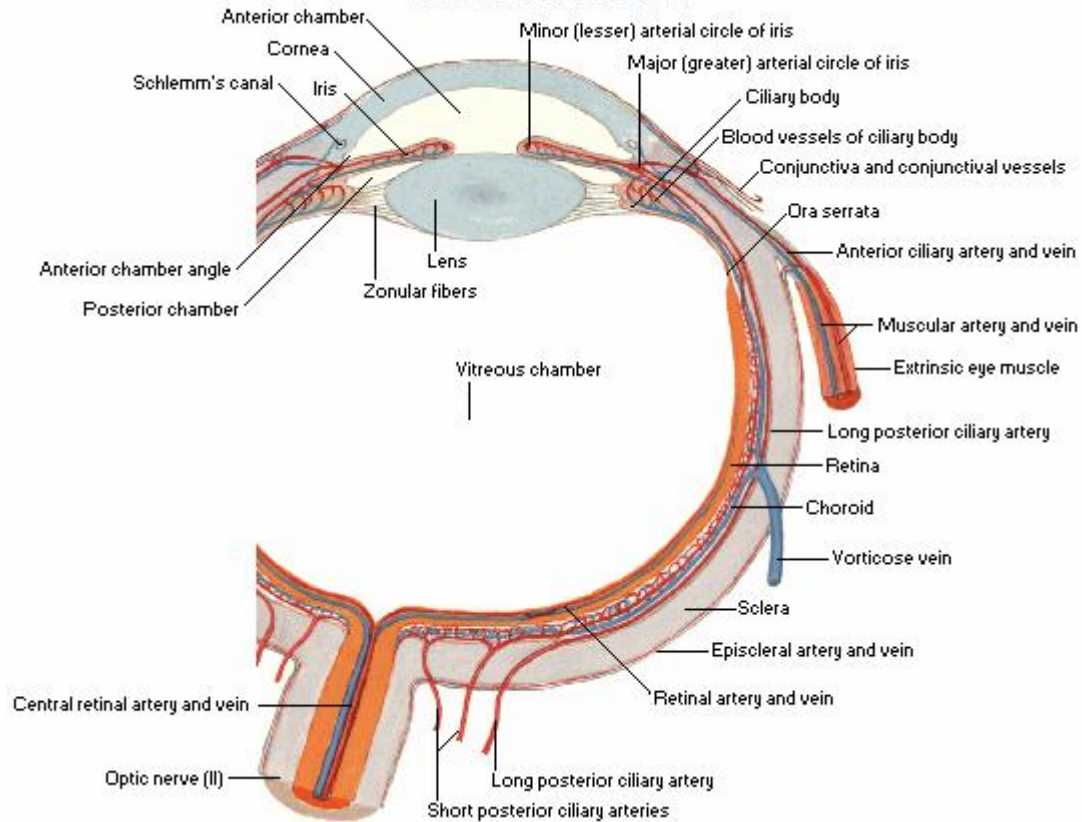


Segment Outlined in Plate 85A

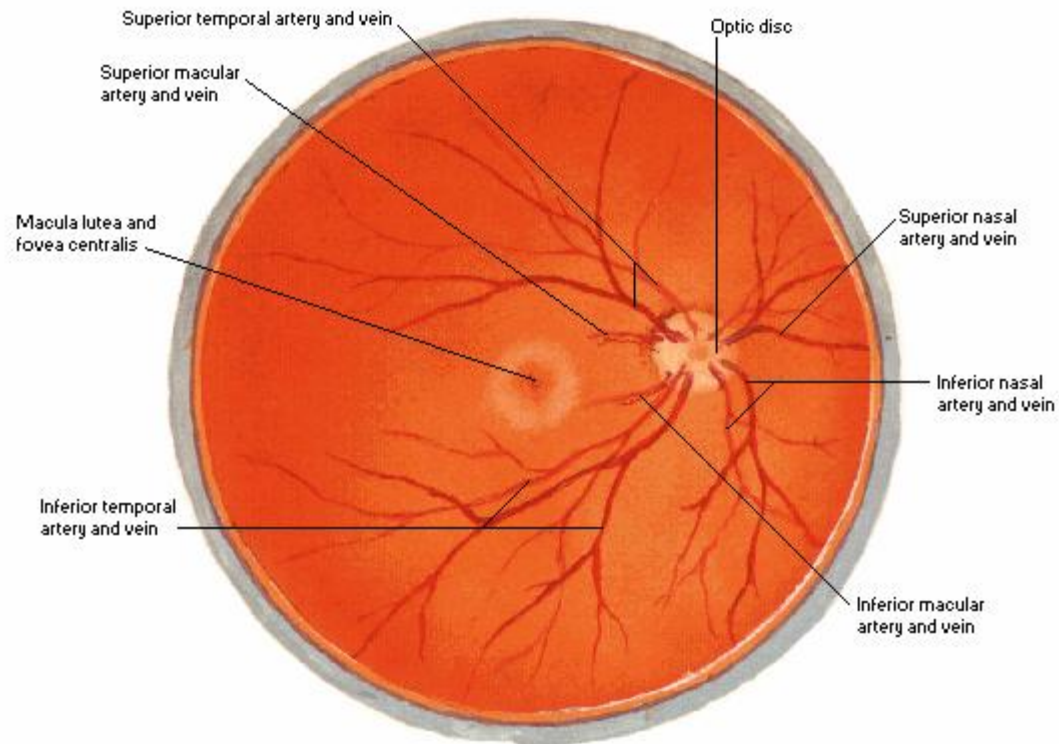


Magnified to ultramicroscopic scale (semischematic)

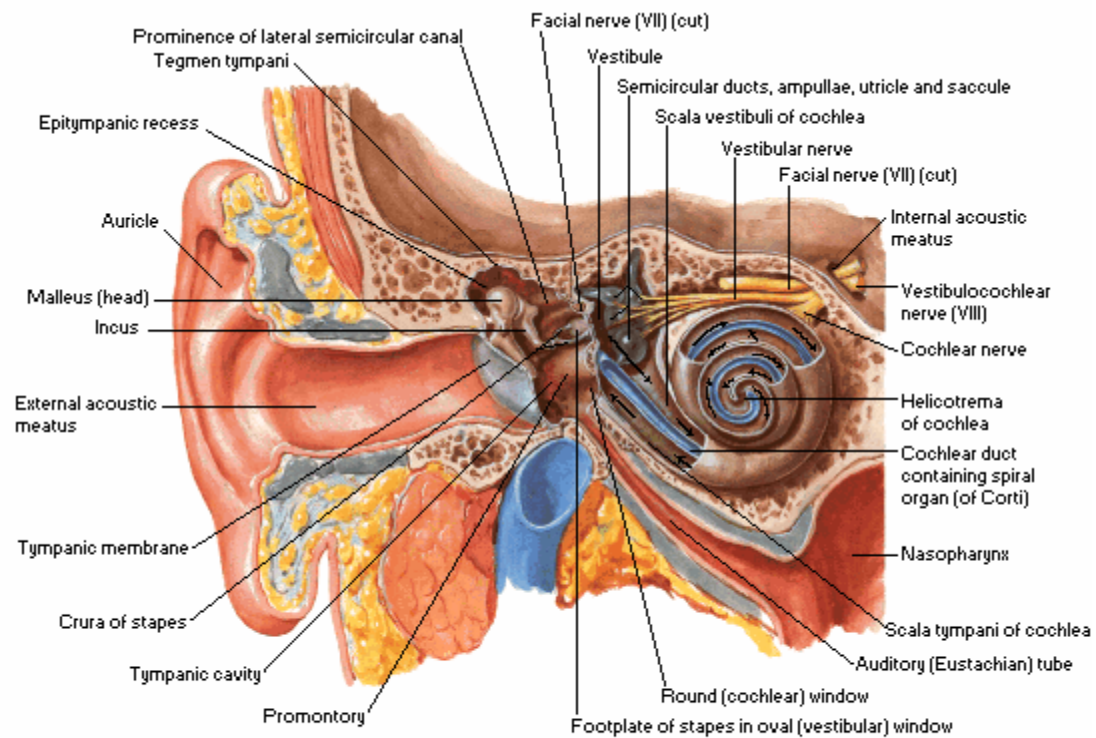
Horizontal Section



Ophthalmoscopic View

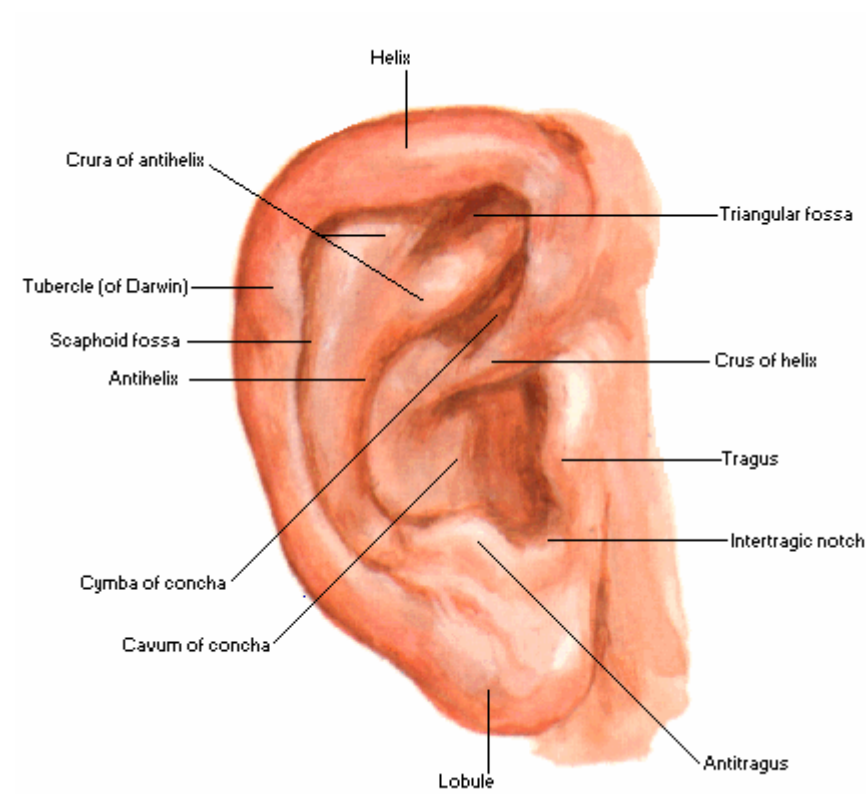


Right retinal vessels

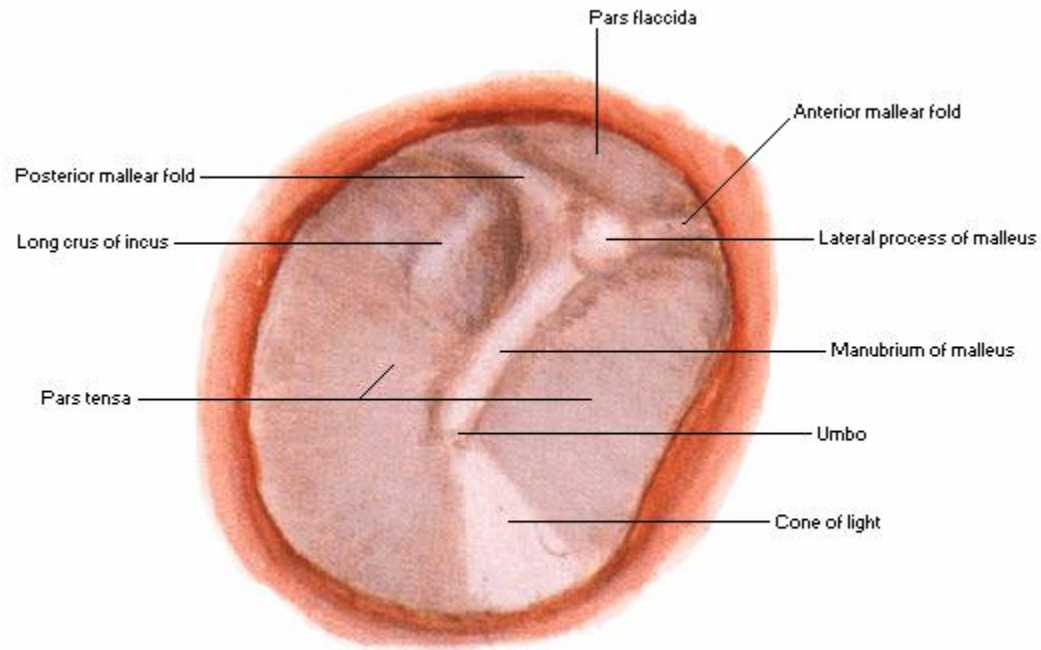


Note: arrows
indicate course
of sound waves

Schematic frontal section

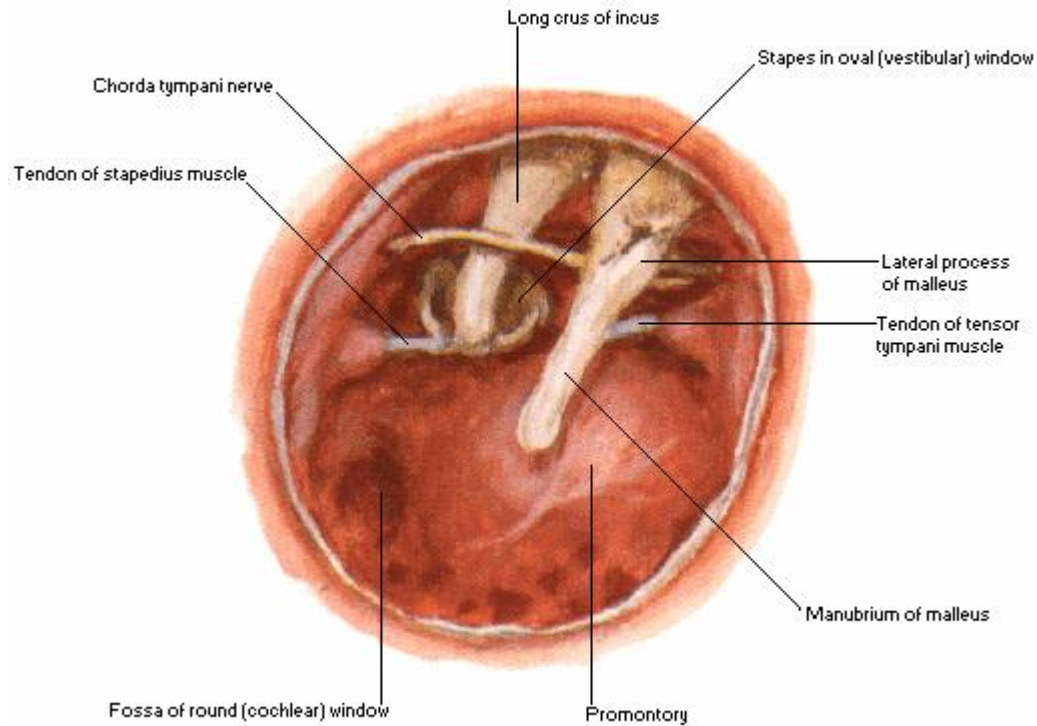


Right Tympanic Membrane



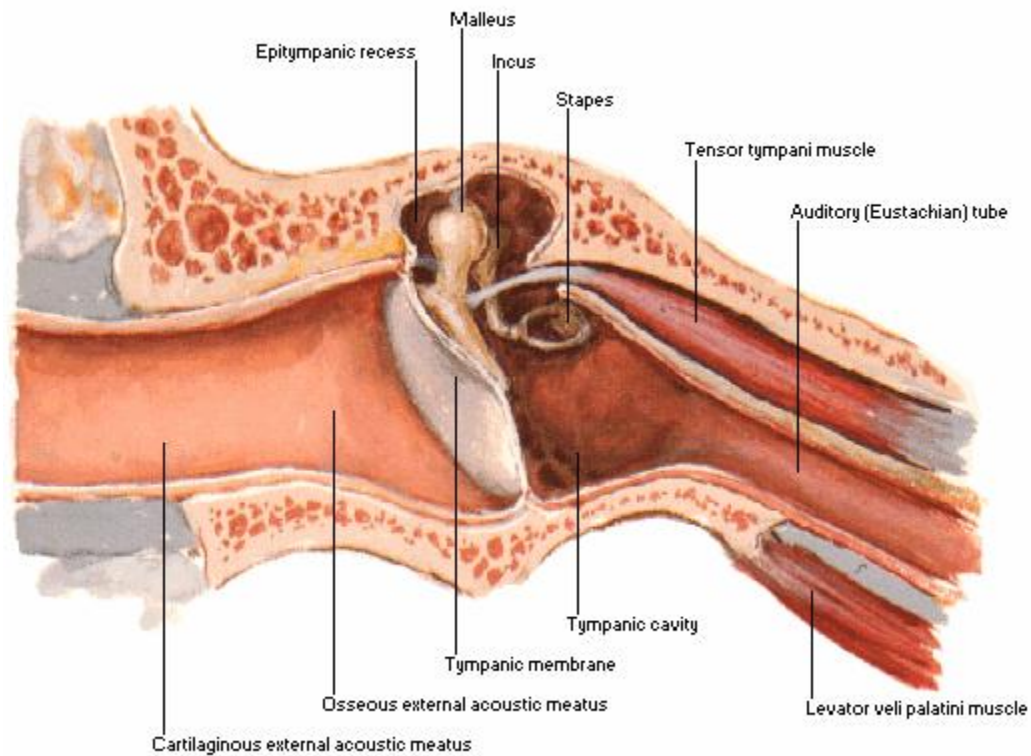
Viewed through speculum

Viewed from External Acoustic Meatus

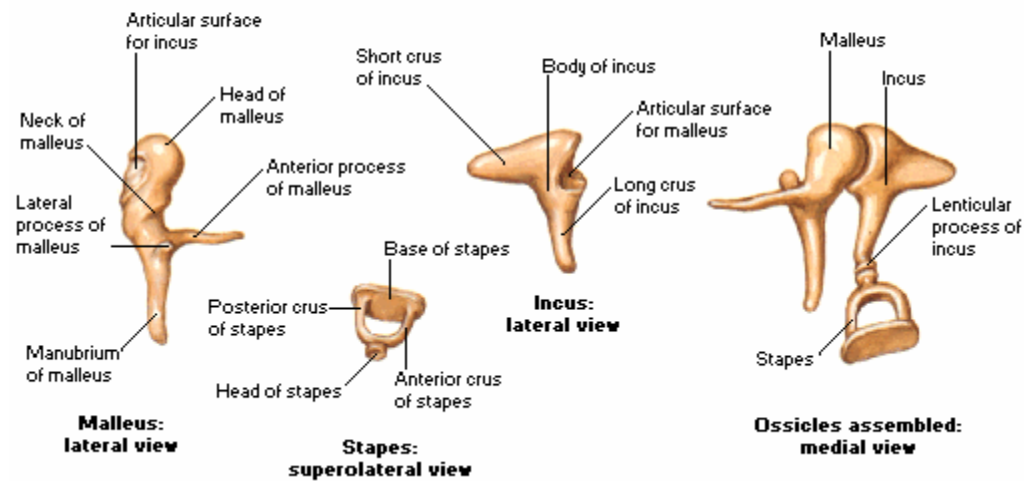


Tympanic Membrane Removed

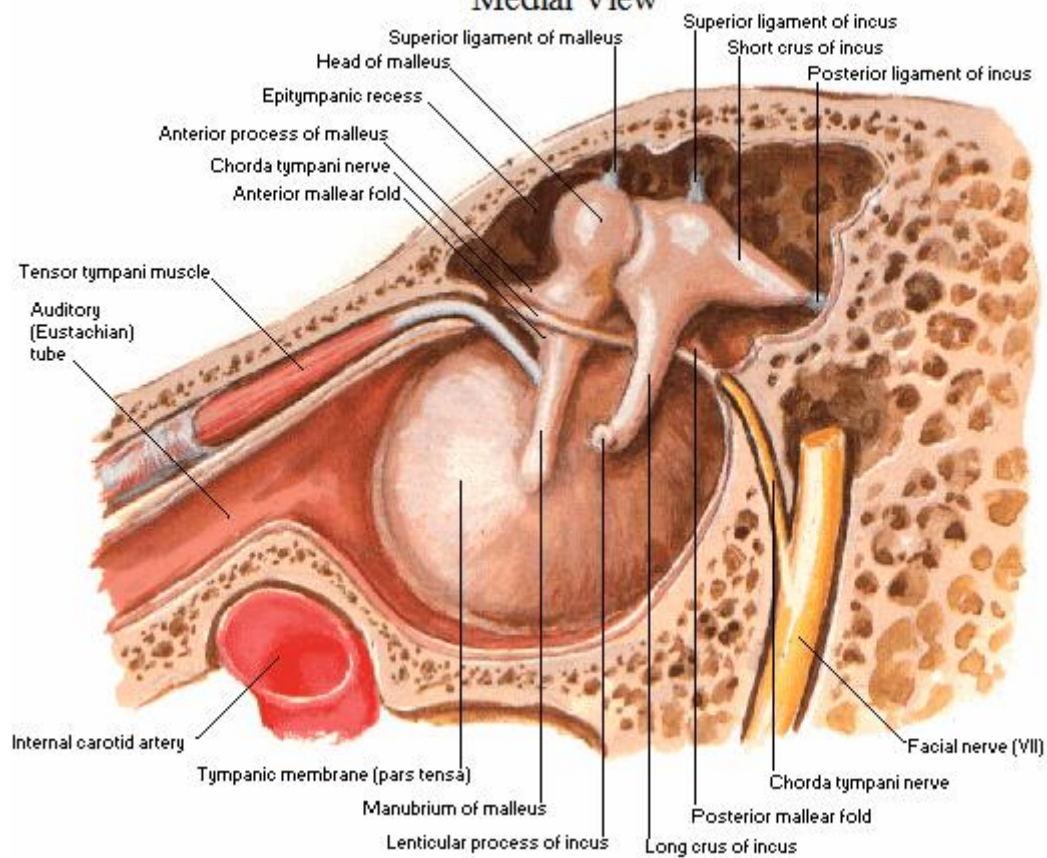
Coronal Oblique Section



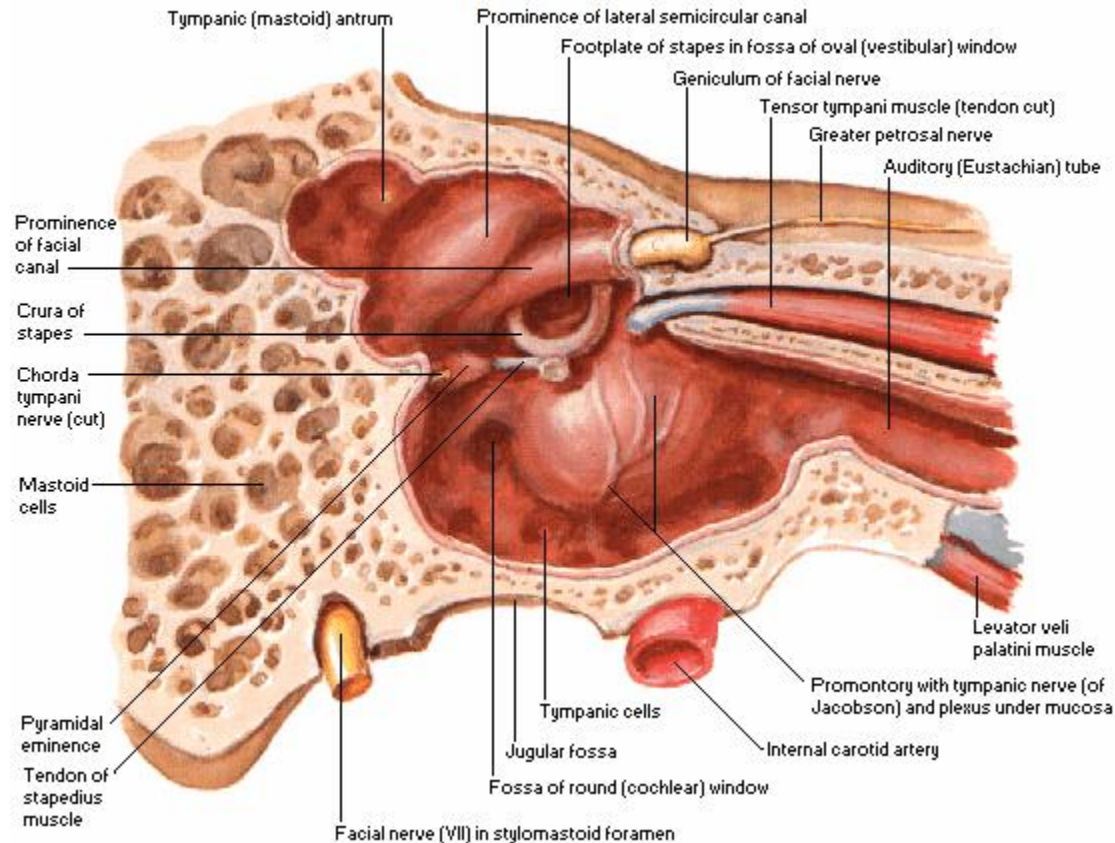
Auditory Ossicles



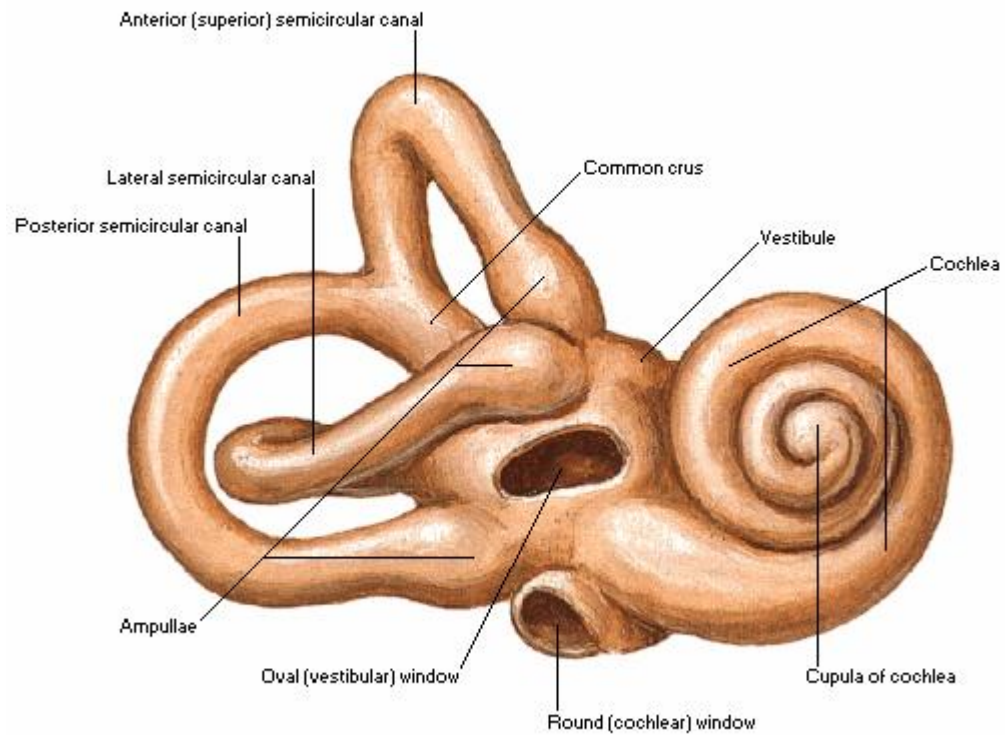
Medial View



Lateral View

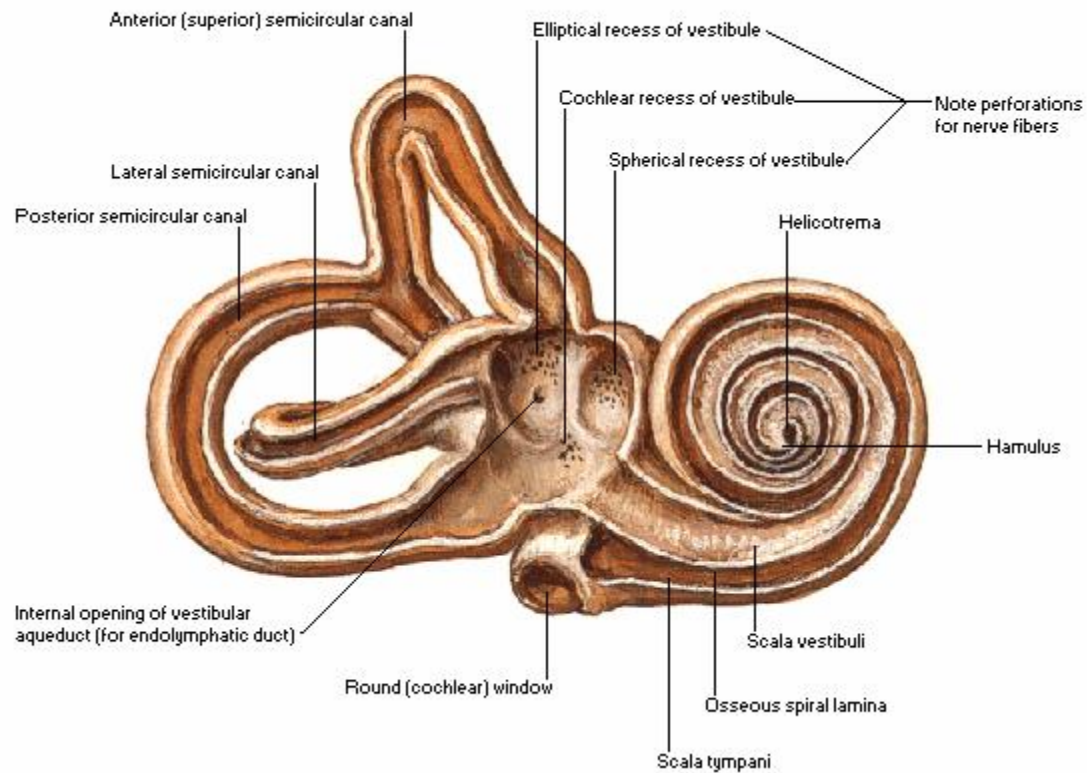


Anterolateral View

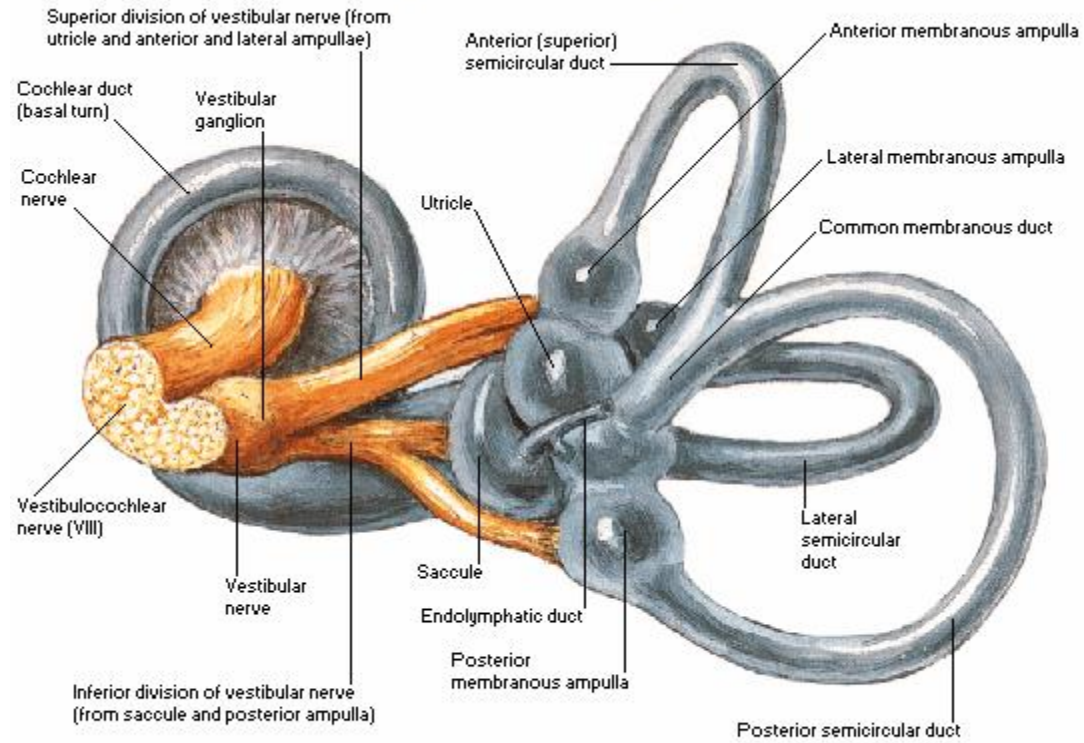


Surrounding cancellous bone removed

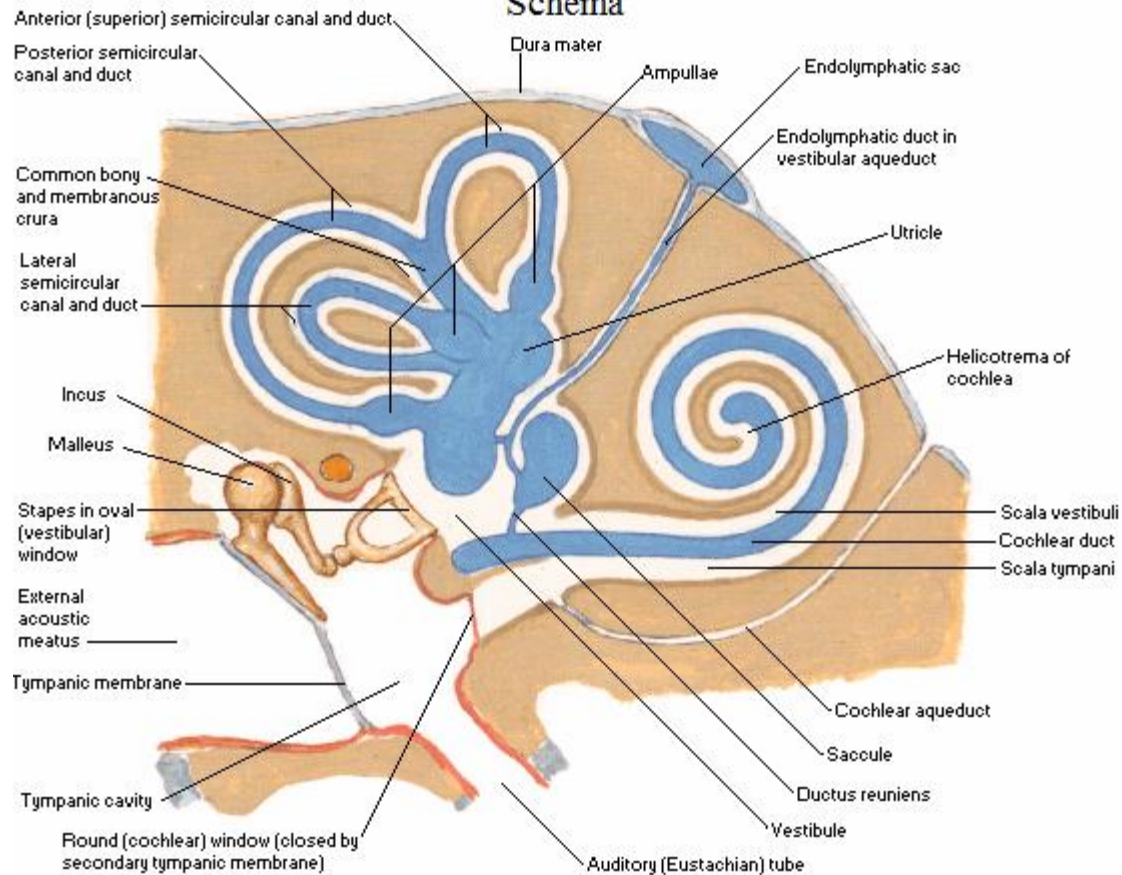
Membranous Labyrinth Removed



Posteromedial View



Schema



Osseous spiral lamina

Nerve fibers

Cochlear modiolus

Spiral ganglion

Cochlear nerve

Scala vestibuli

Vestibular (Reissner's) membrane

Cochlear duct

Spiral ligament

Tectorial membrane

Spiral organ (of Corti)

Basilar membrane

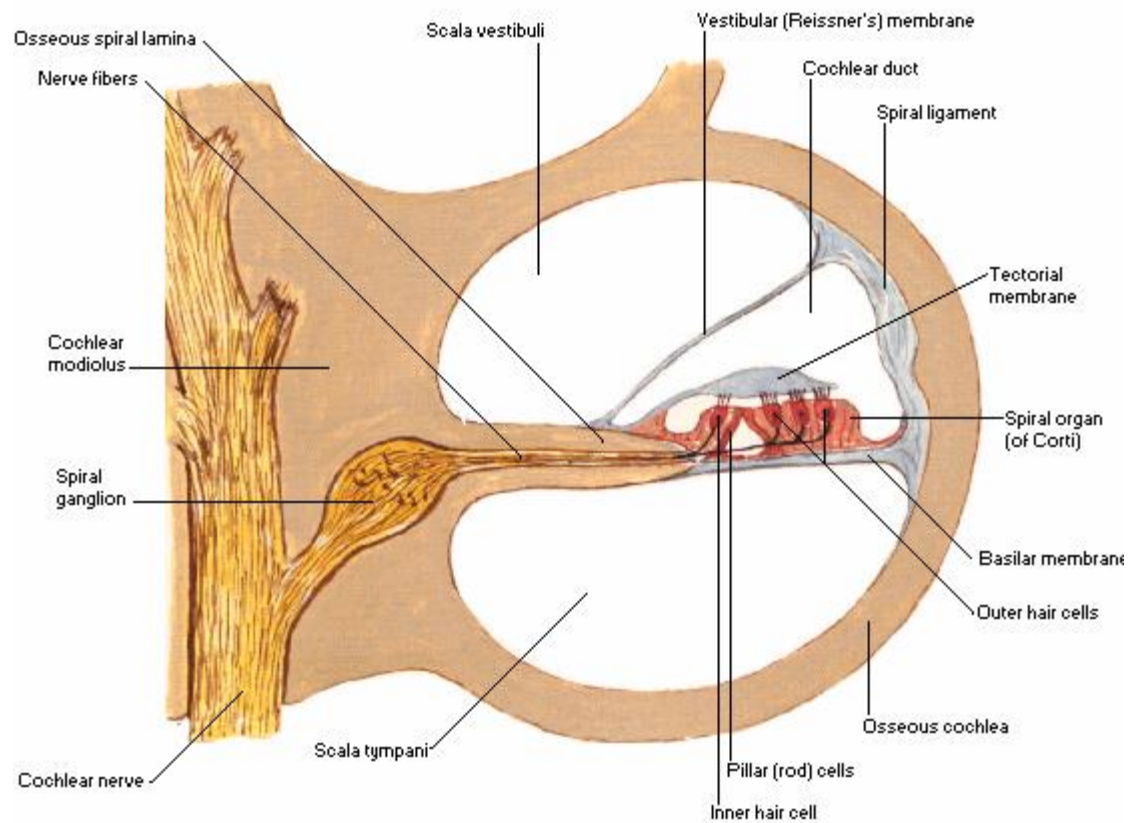
Outer hair cells

Osseous cochlea

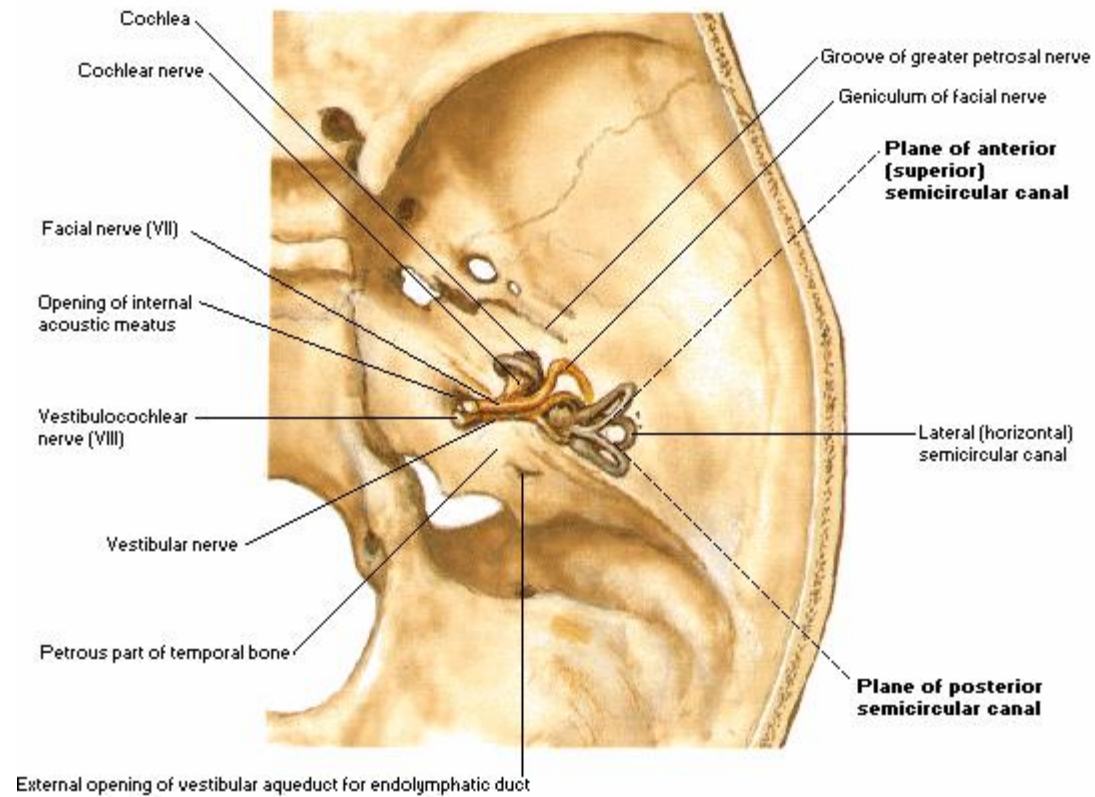
Pillar (rod) cells

Inner hair cell

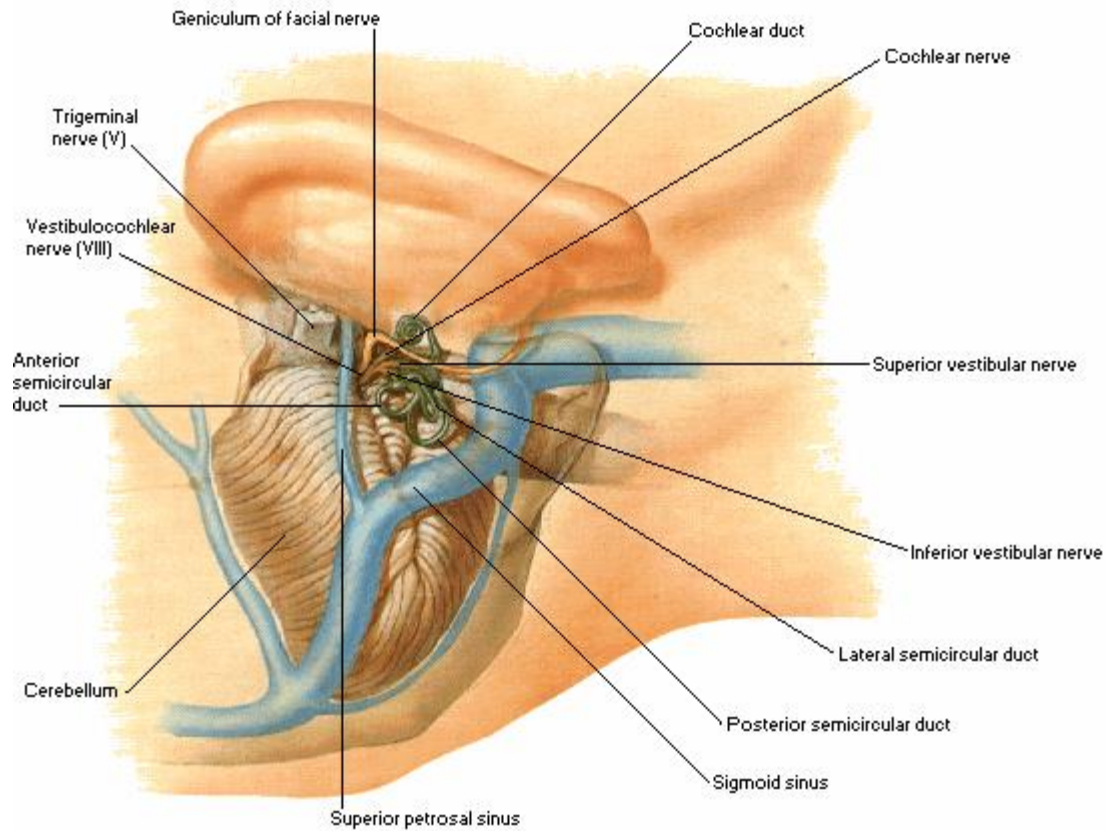
Scala tympani



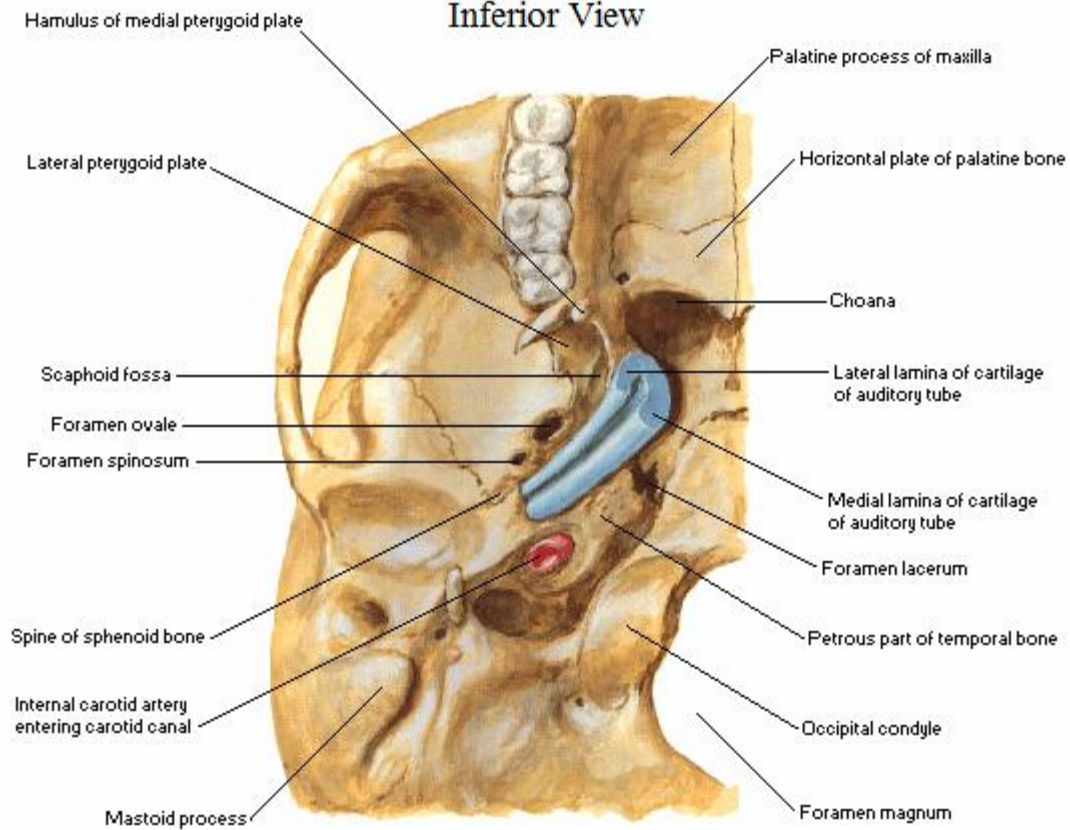
Superior Projection



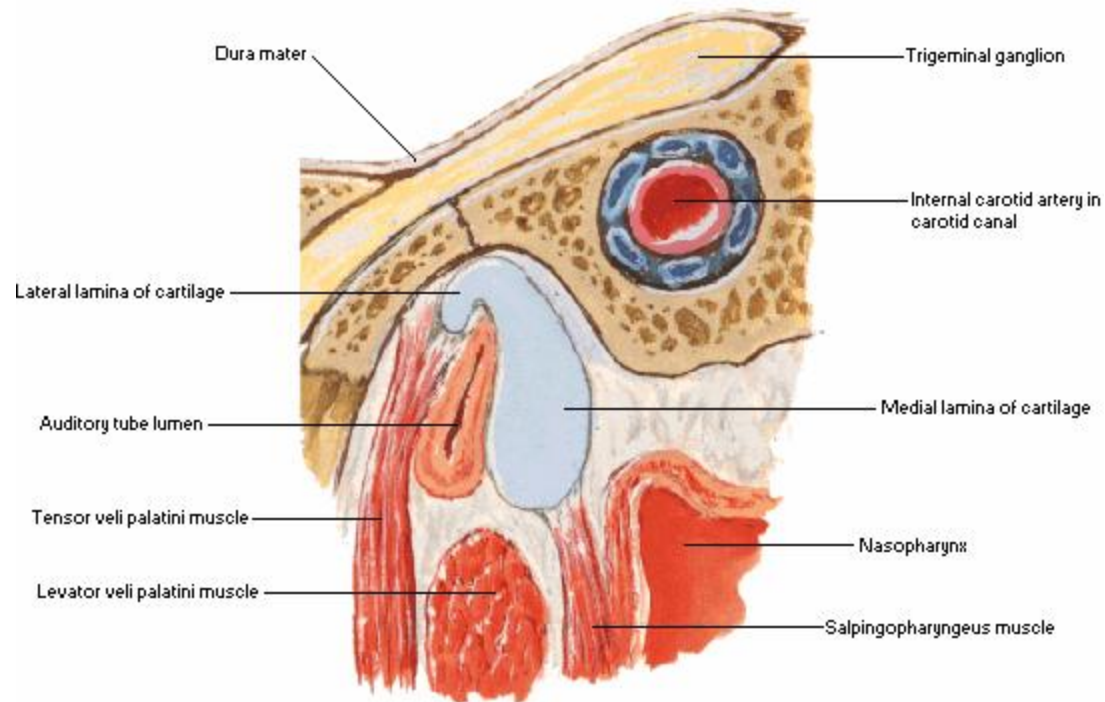
Lateral Projection



Inferior View

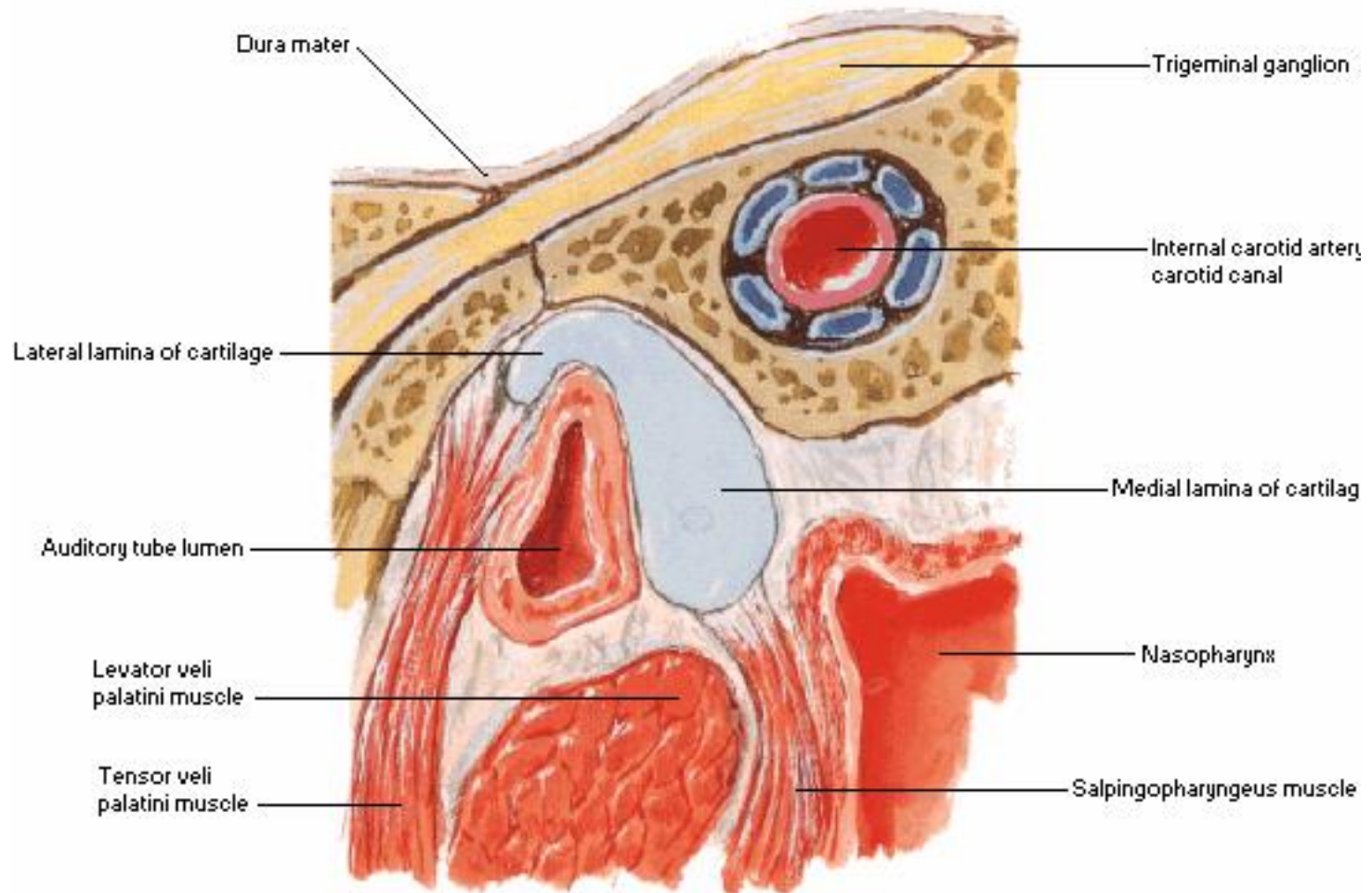


Tube Closed



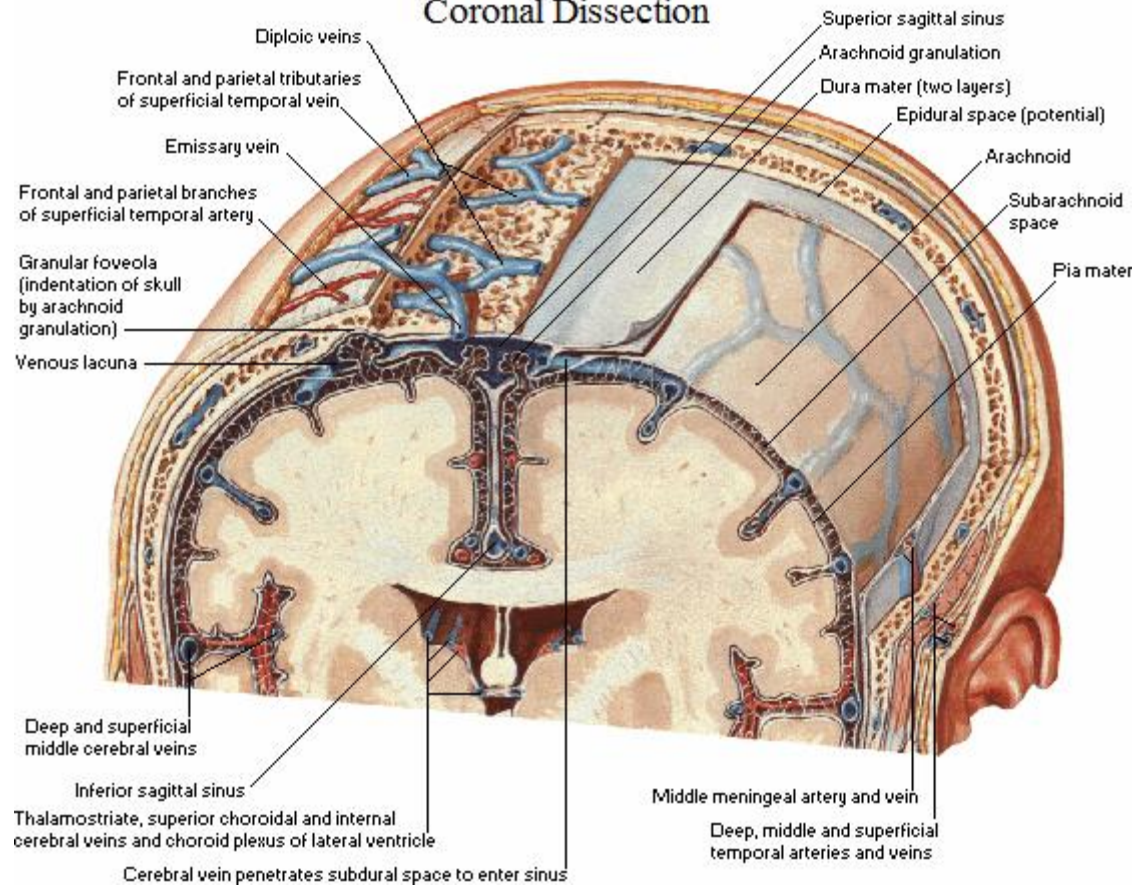
Auditory tube closed by elastic recoil of cartilage, tissue turgidity and tension of salpingopharyngeus muscles

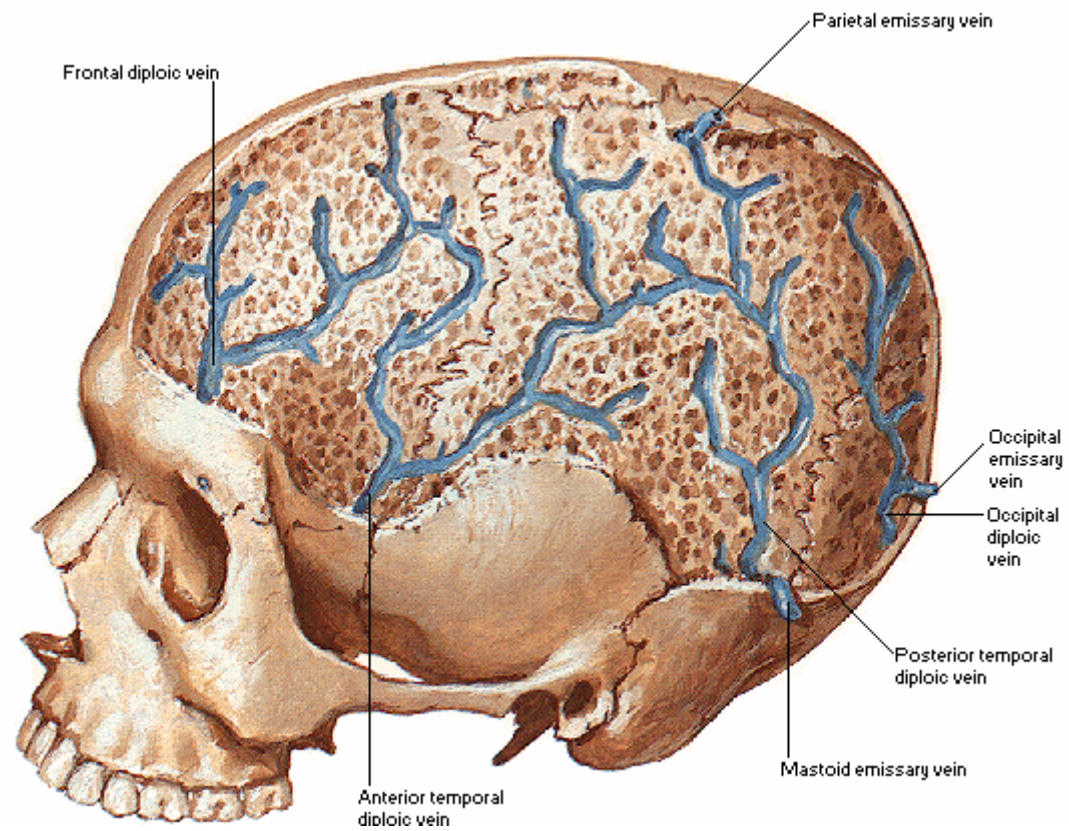
Tube Open

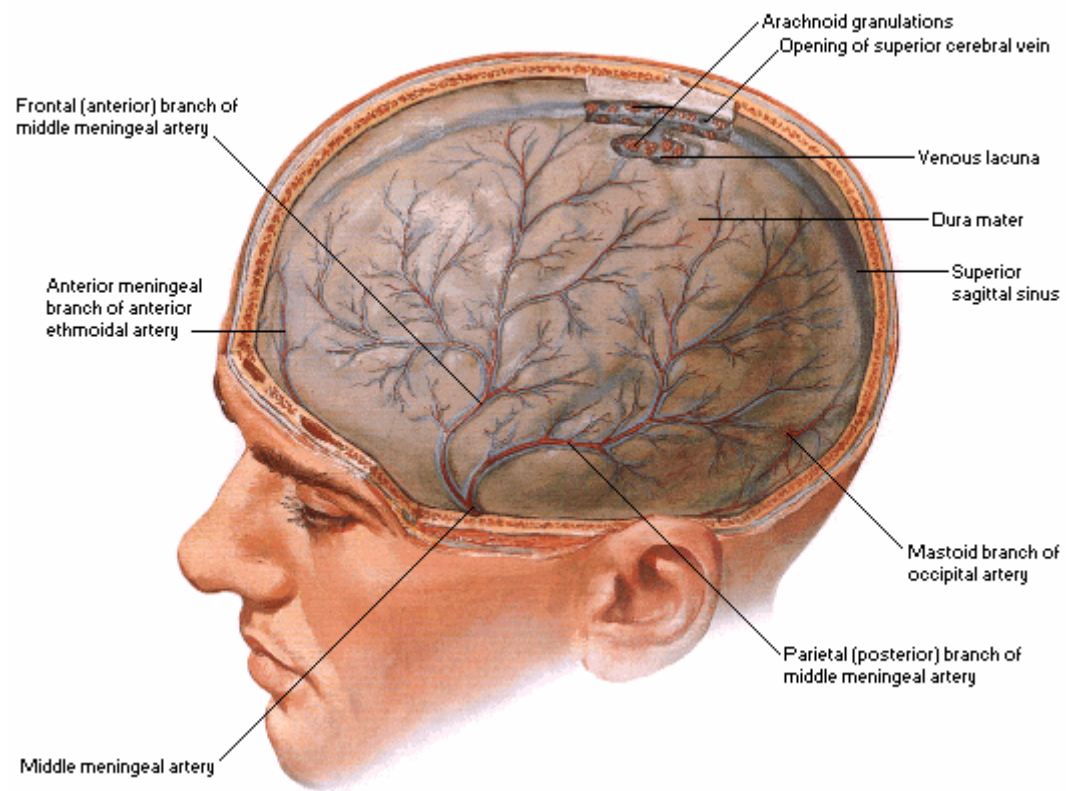


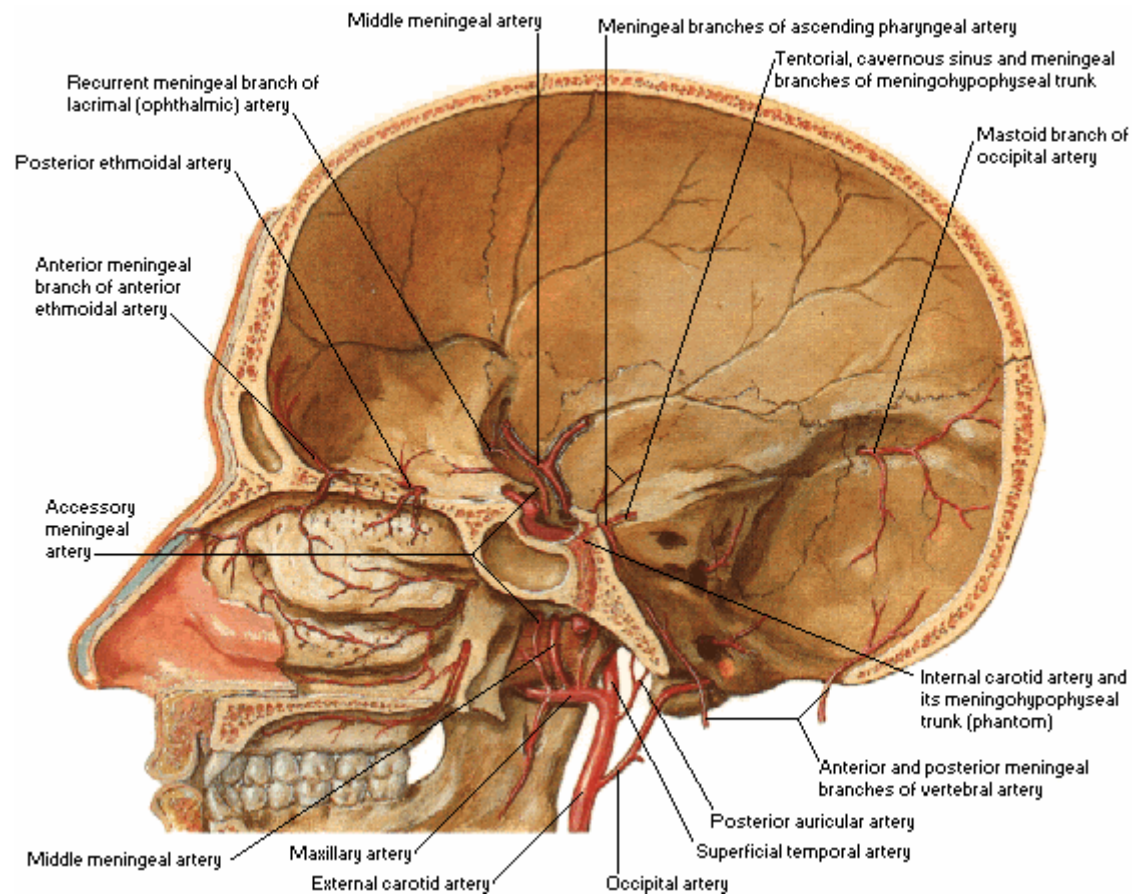
Lumen opened chiefly when attachment of tensor veli palatini muscle pulls wall of tube laterally during swallowing

Coronal Dissection

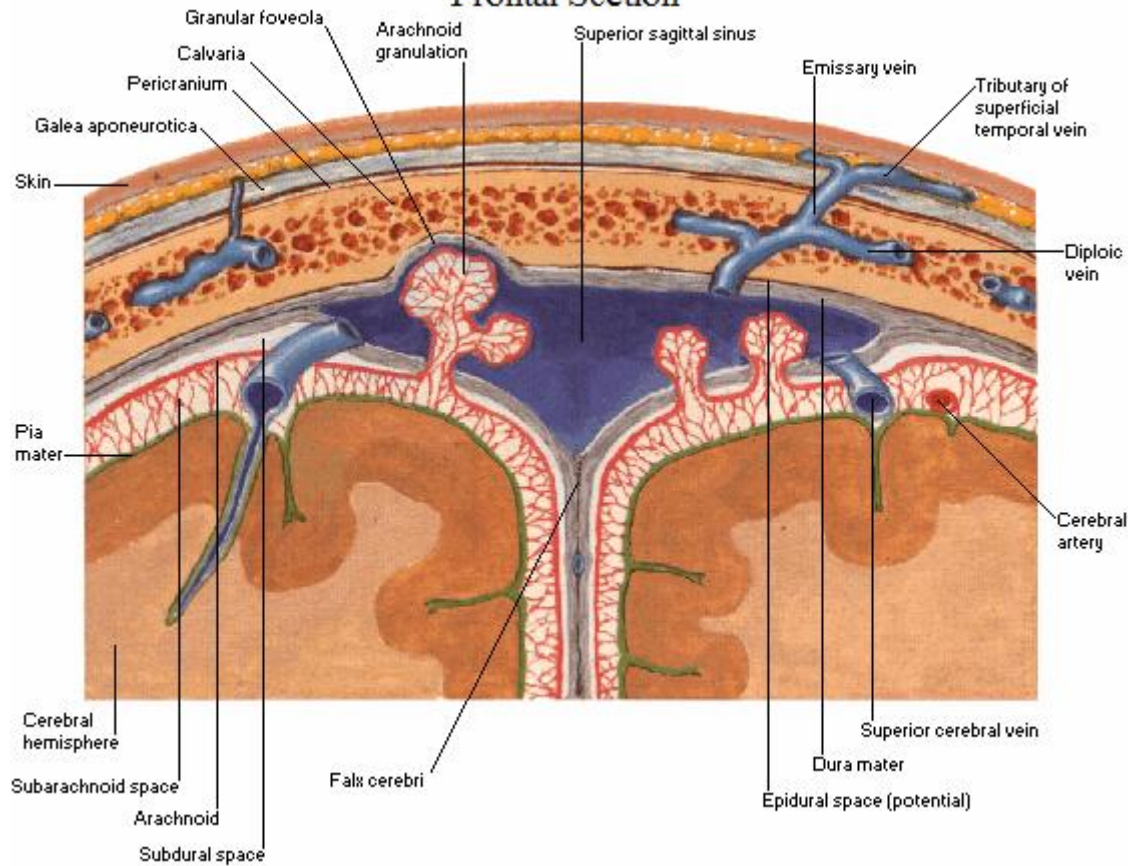




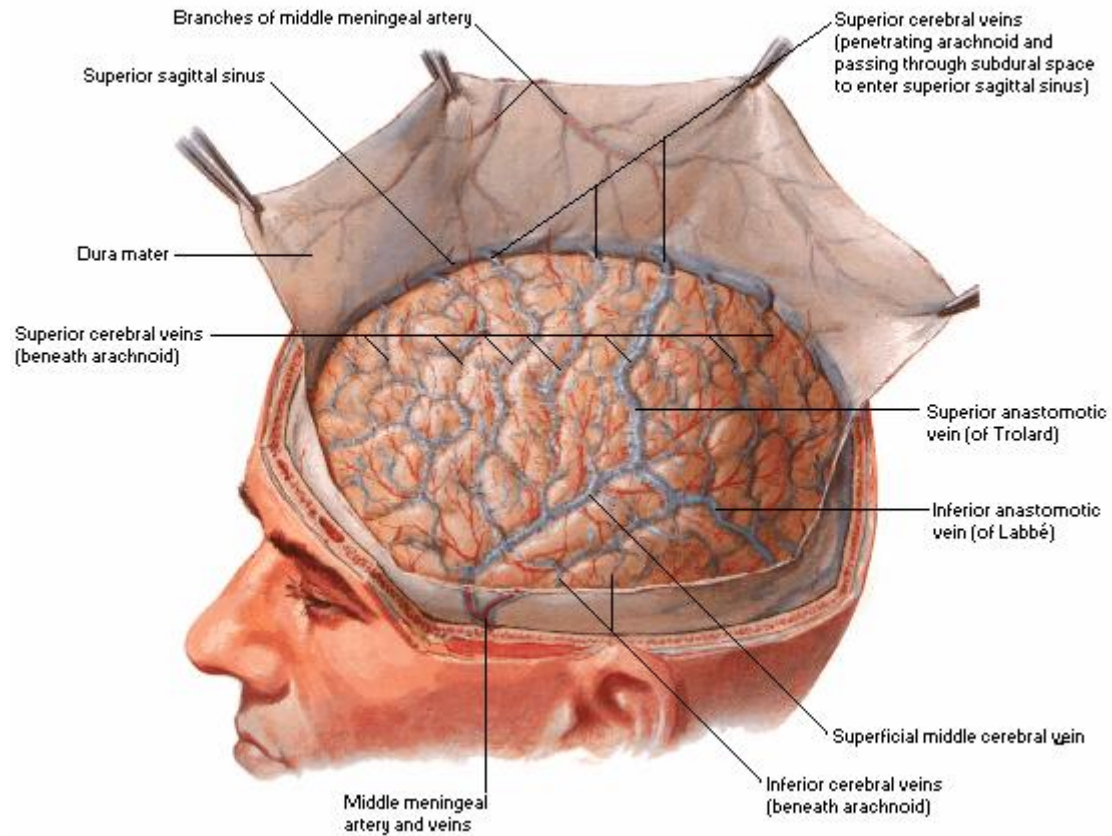




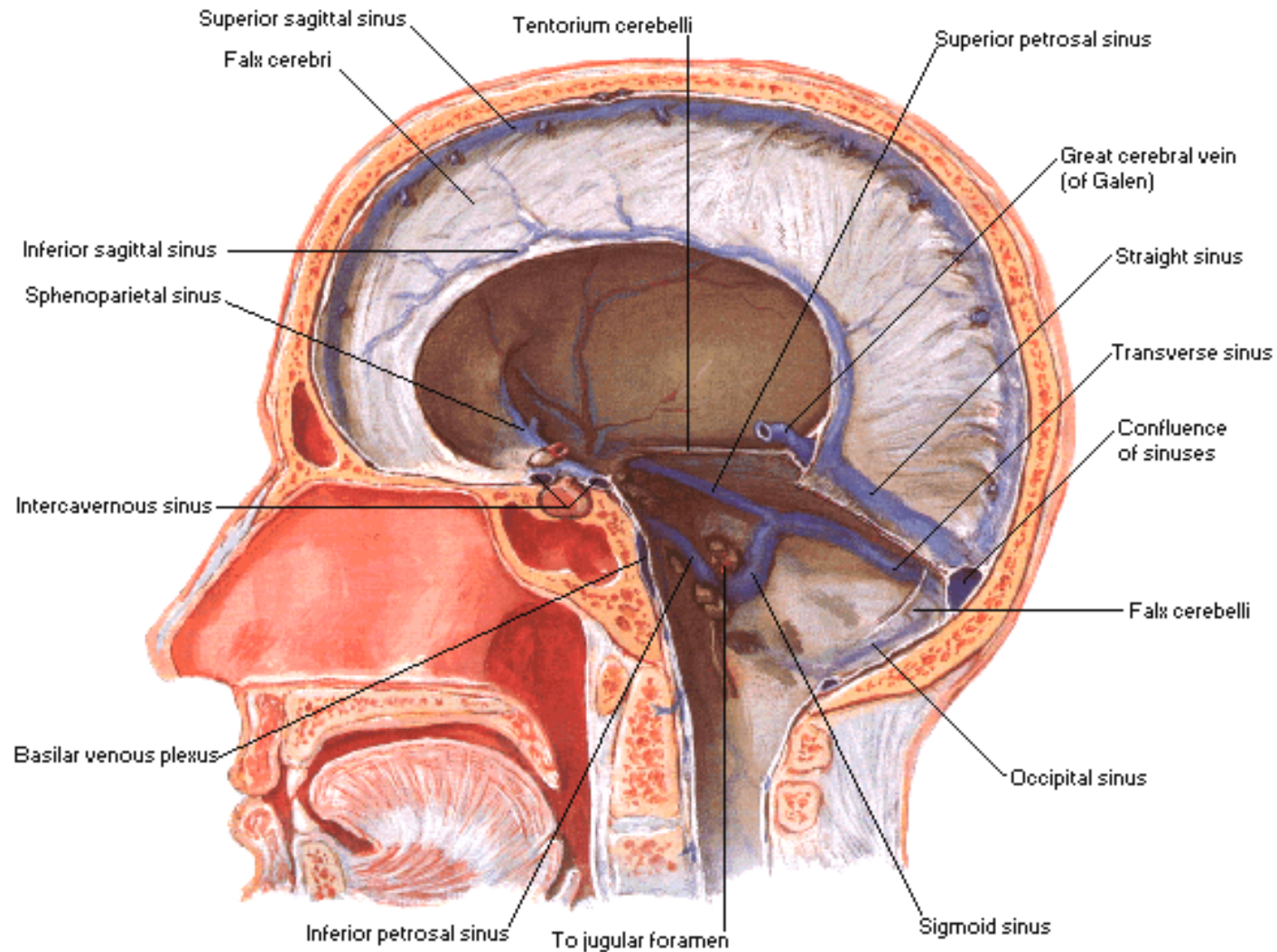
Frontal Section



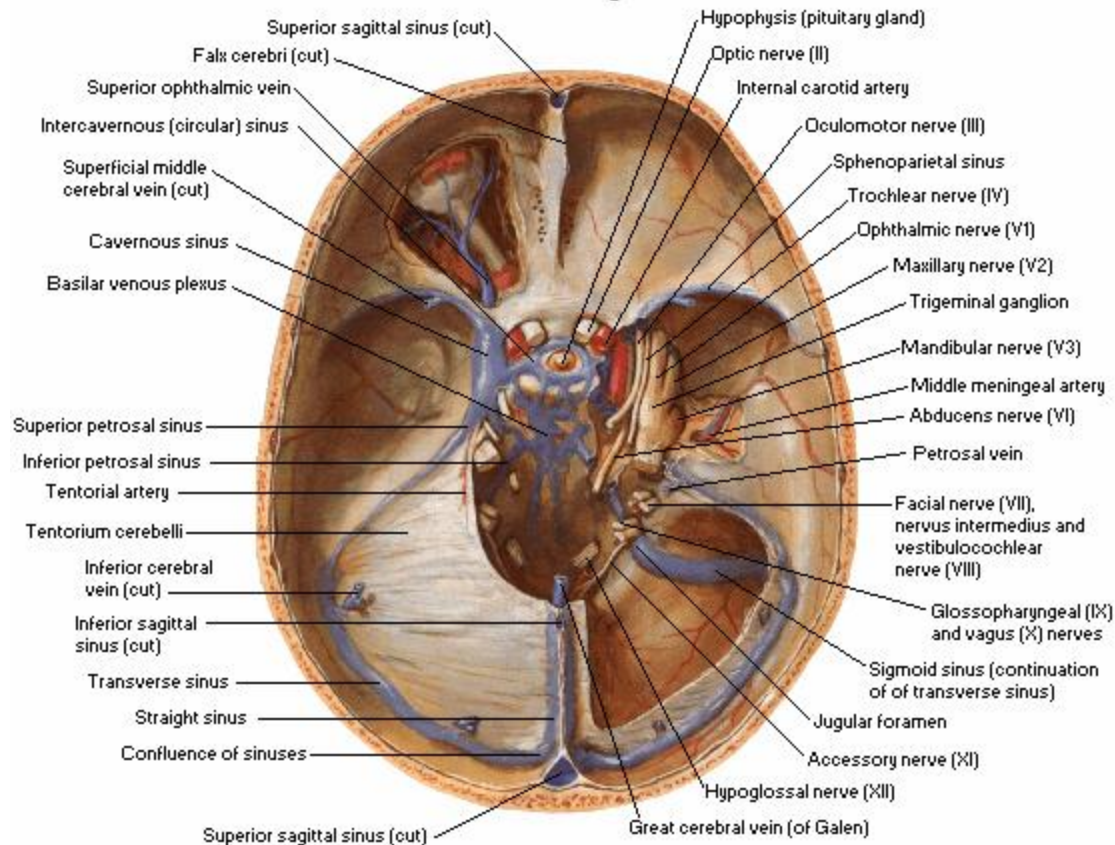
Dura Mater Lifted



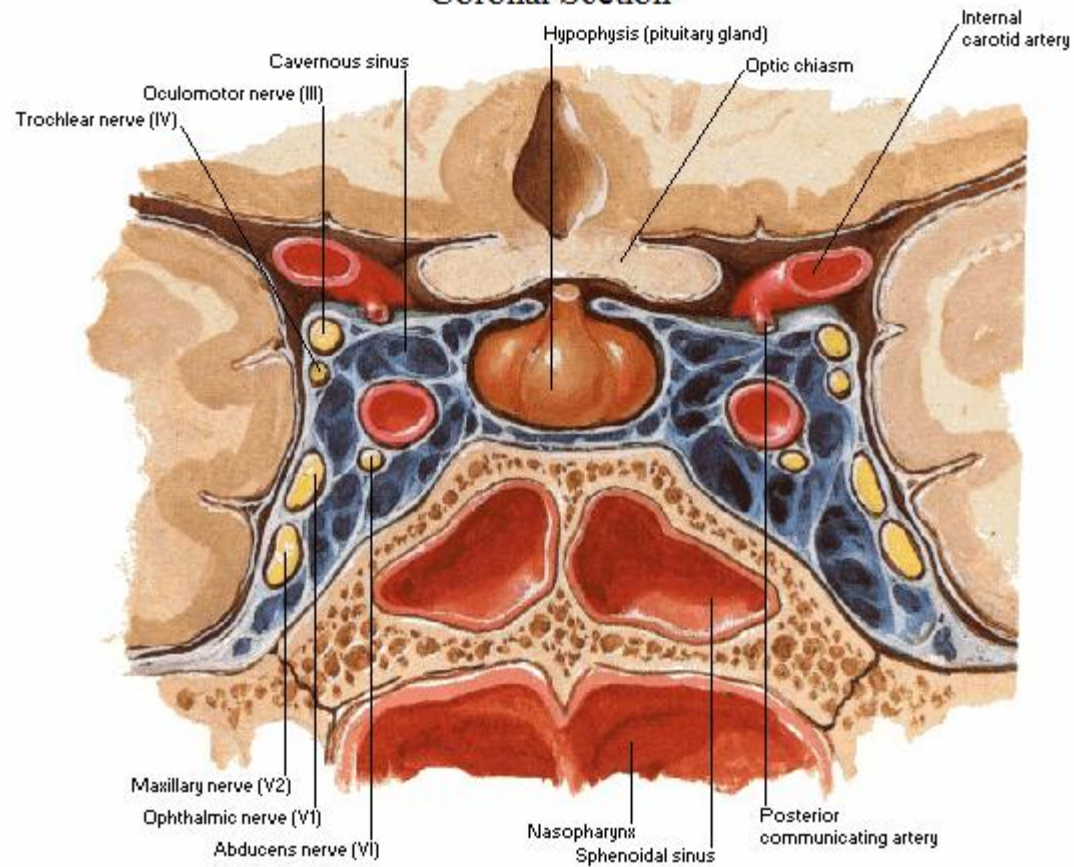
Sagittal Section



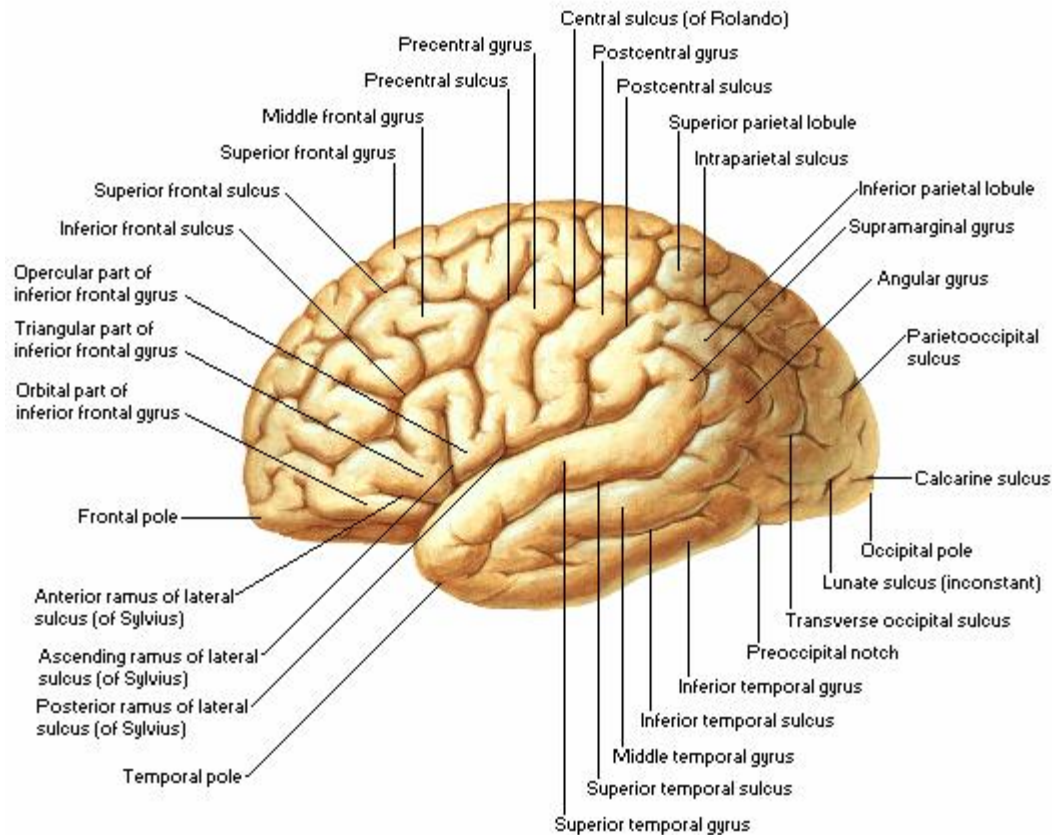
Cranial Floor - Superior View



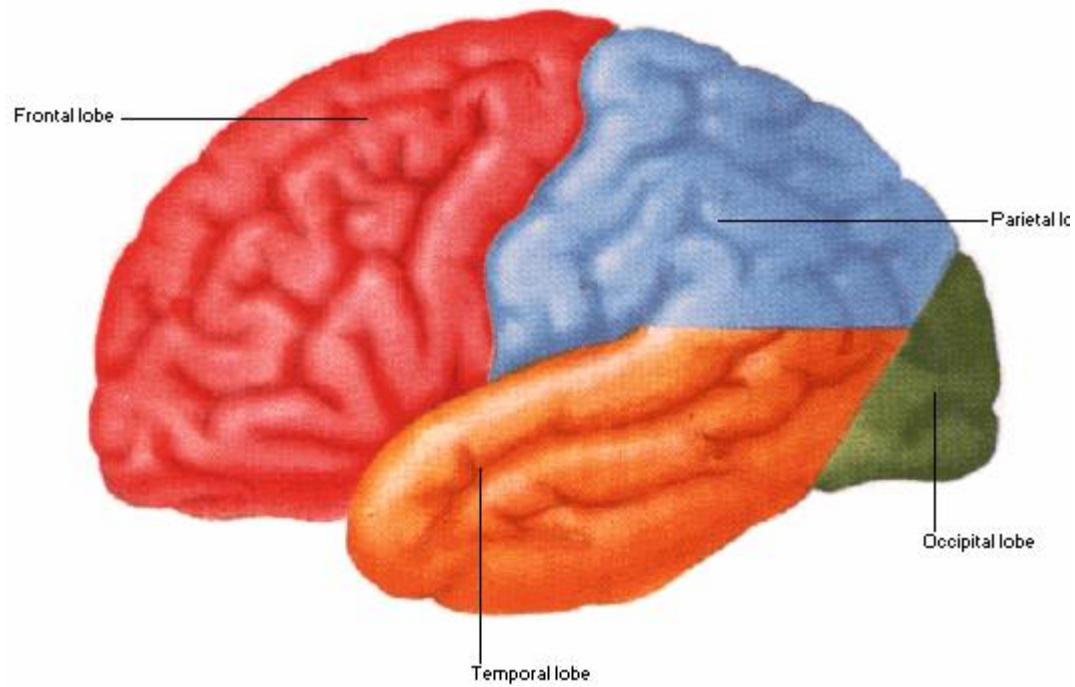
Coronal Section



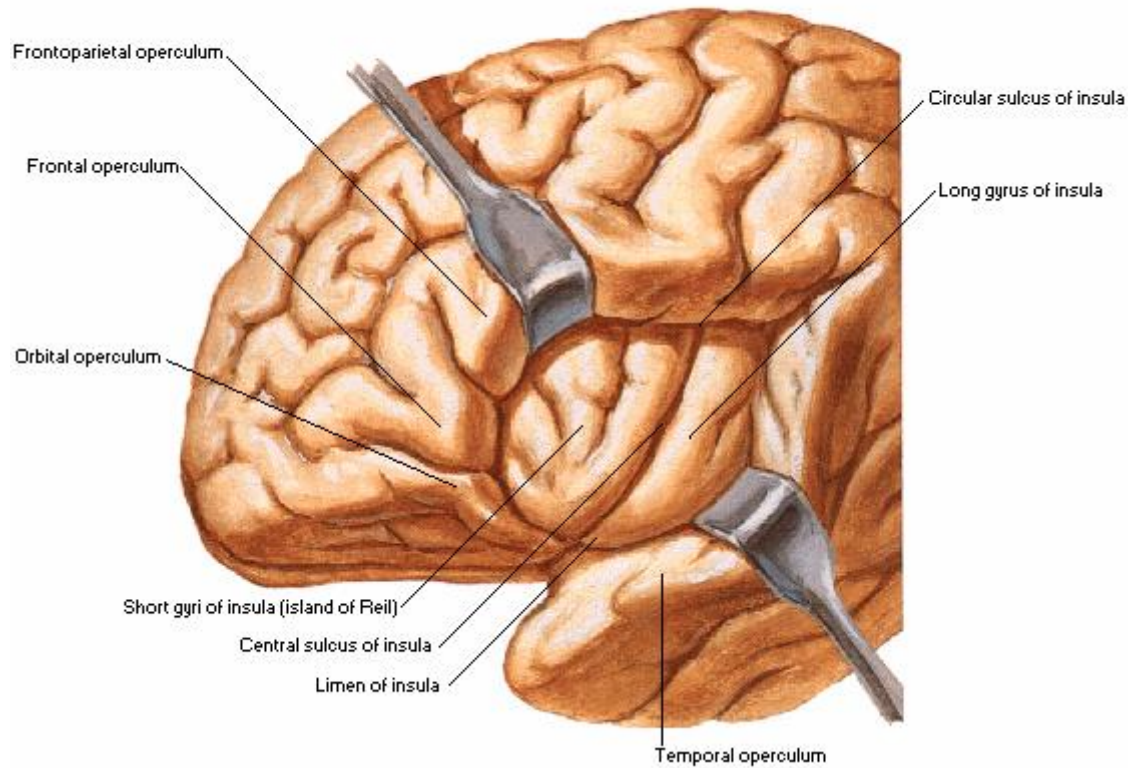
Lateral View



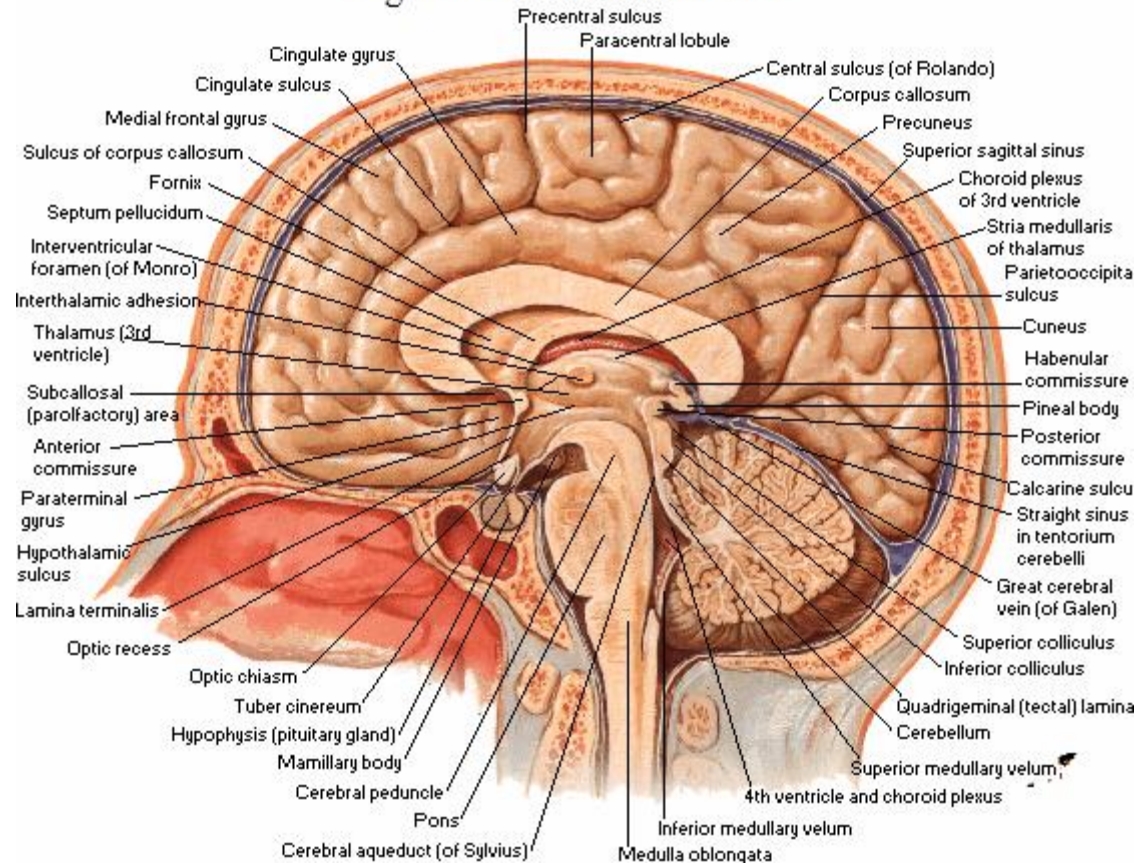
Lateral View



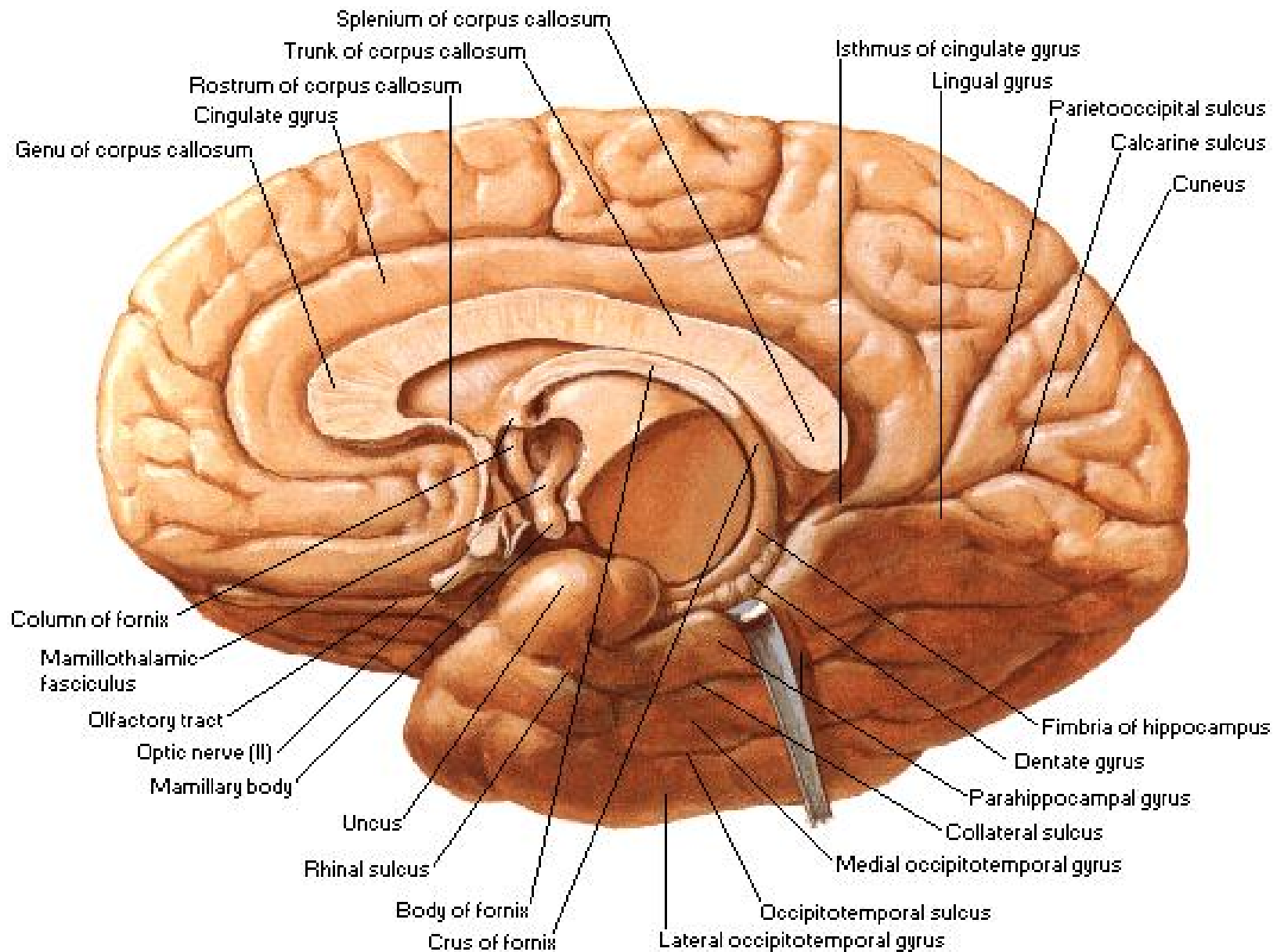
Lateral View



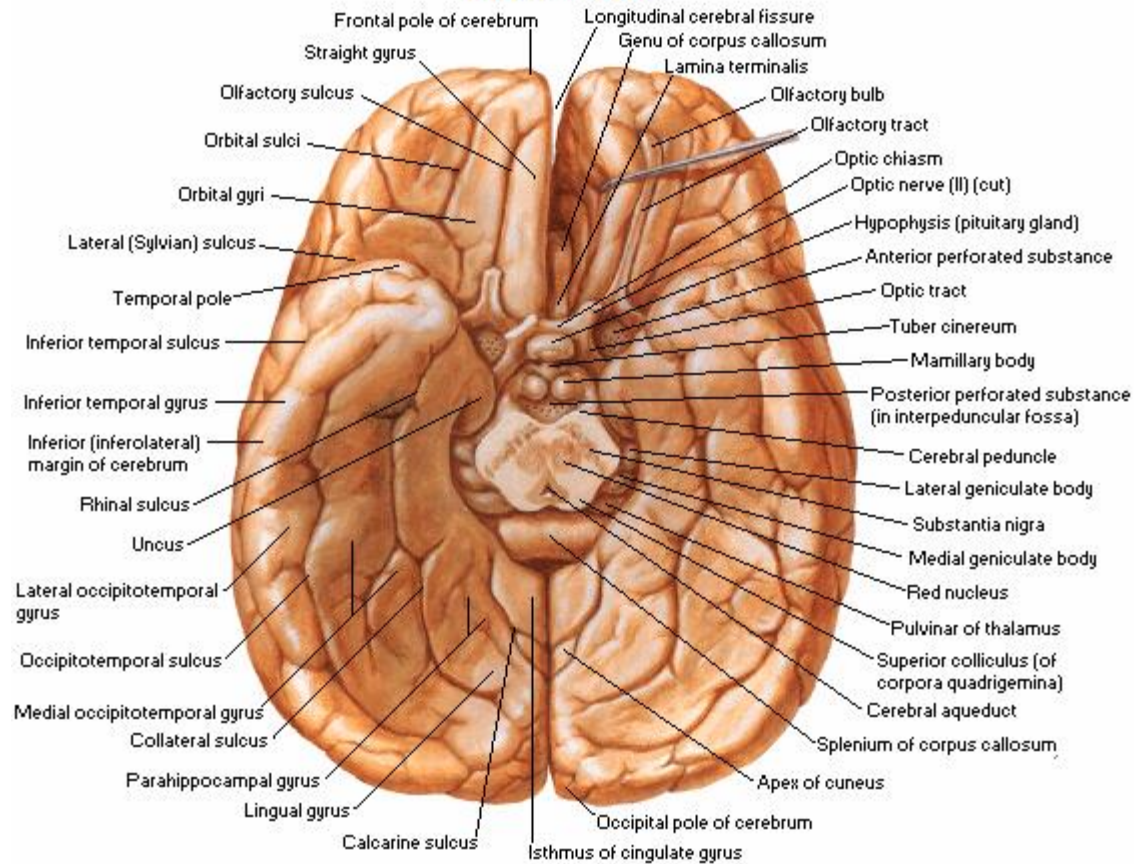
Sagittal Section - Medial View



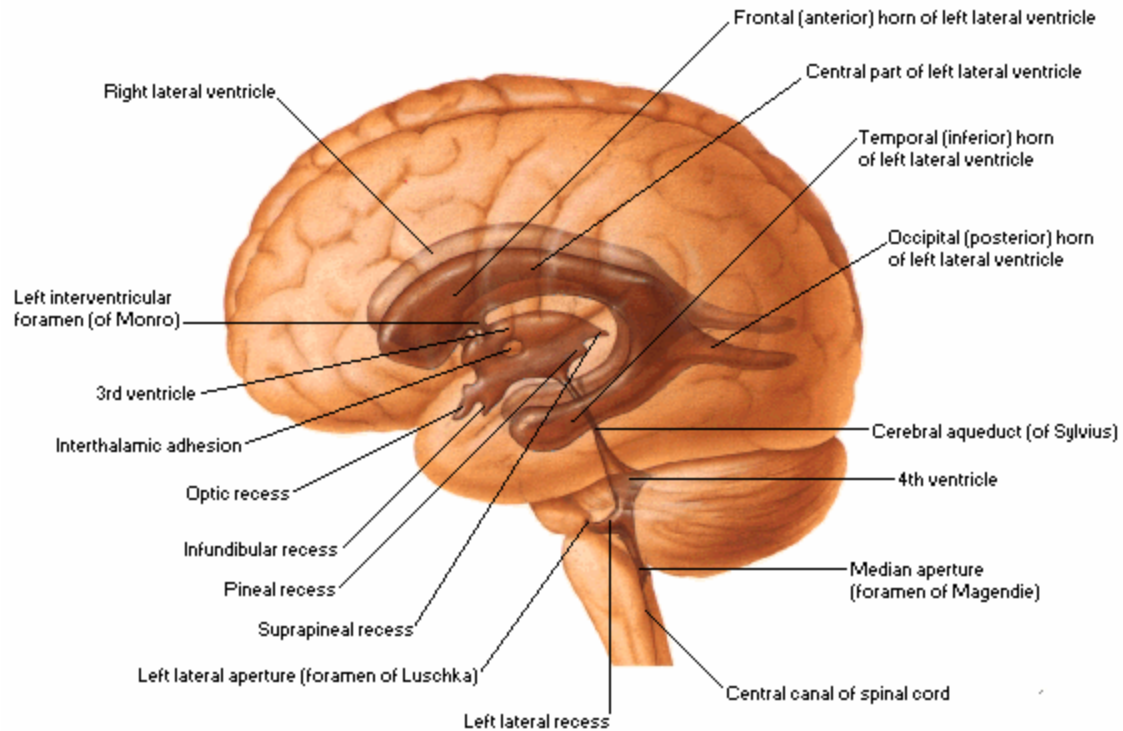
Medial View



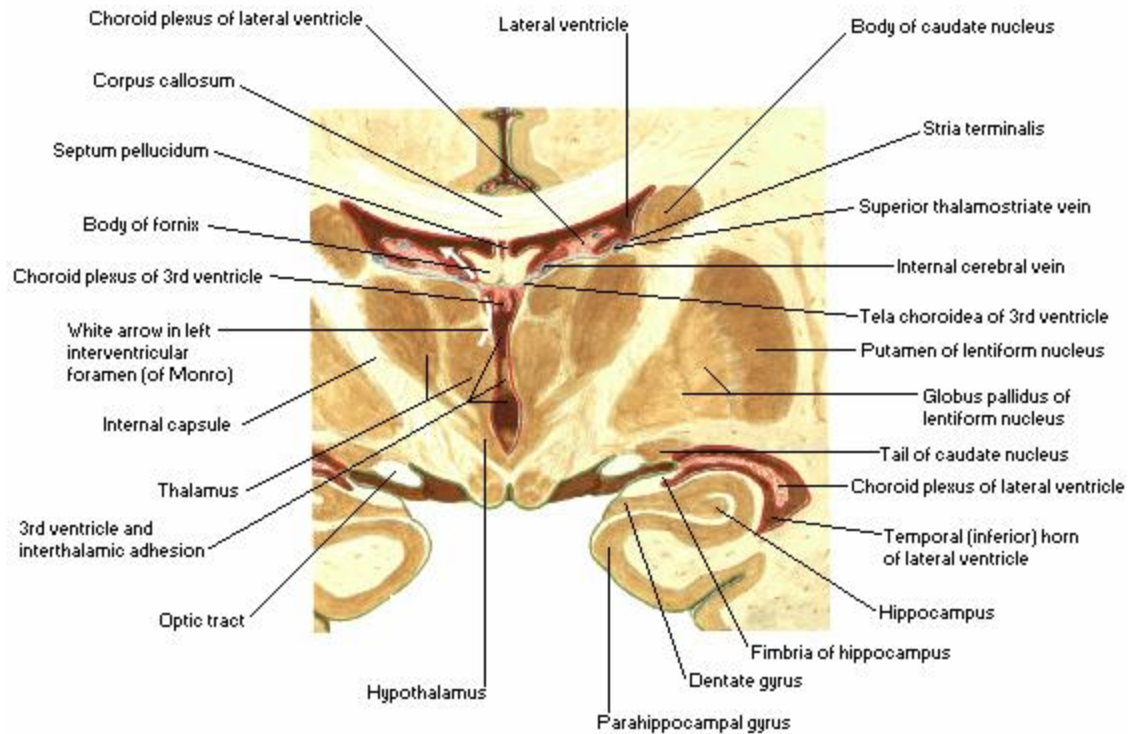
Inferior View

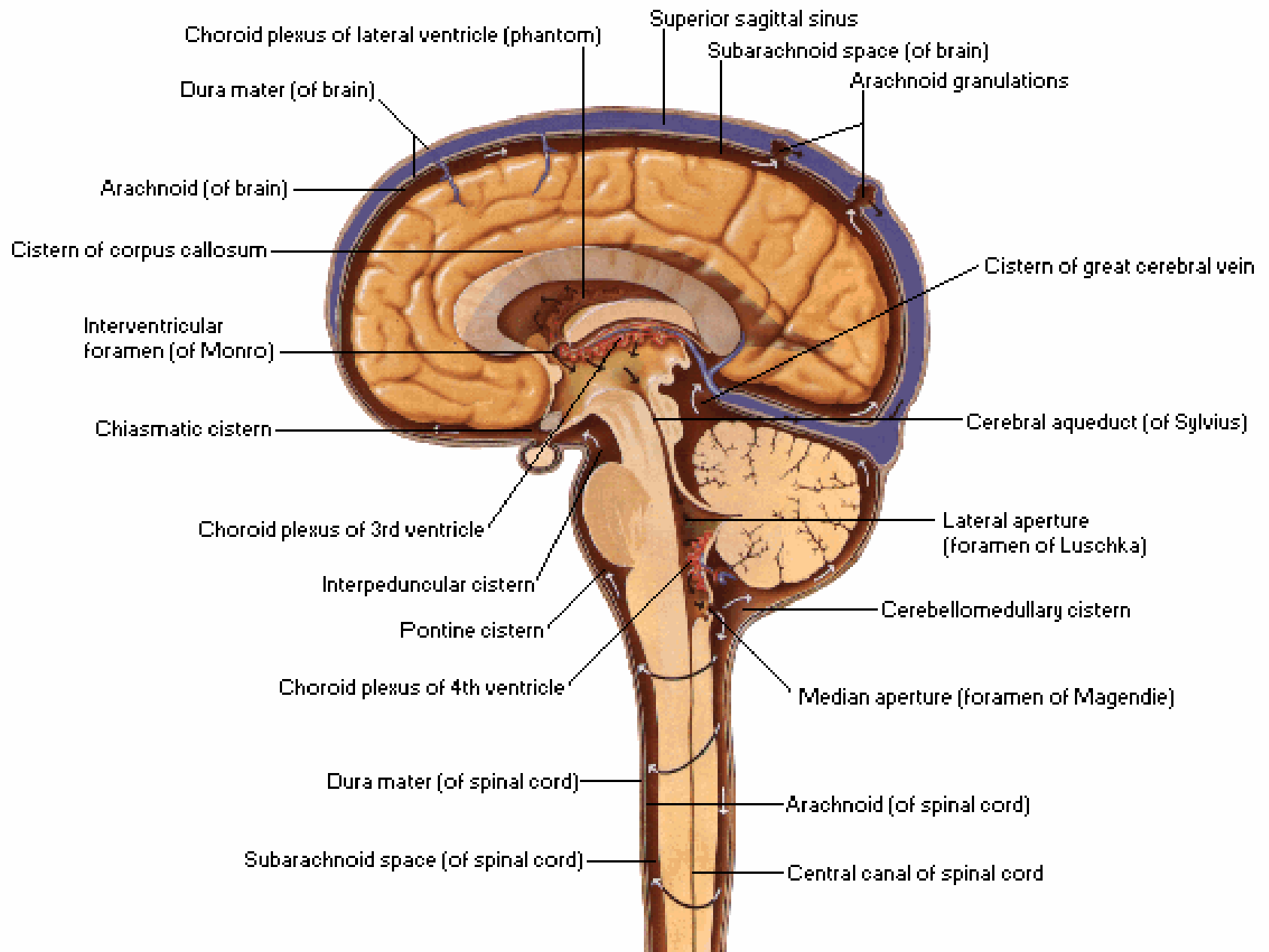


Left Lateral Phantom View

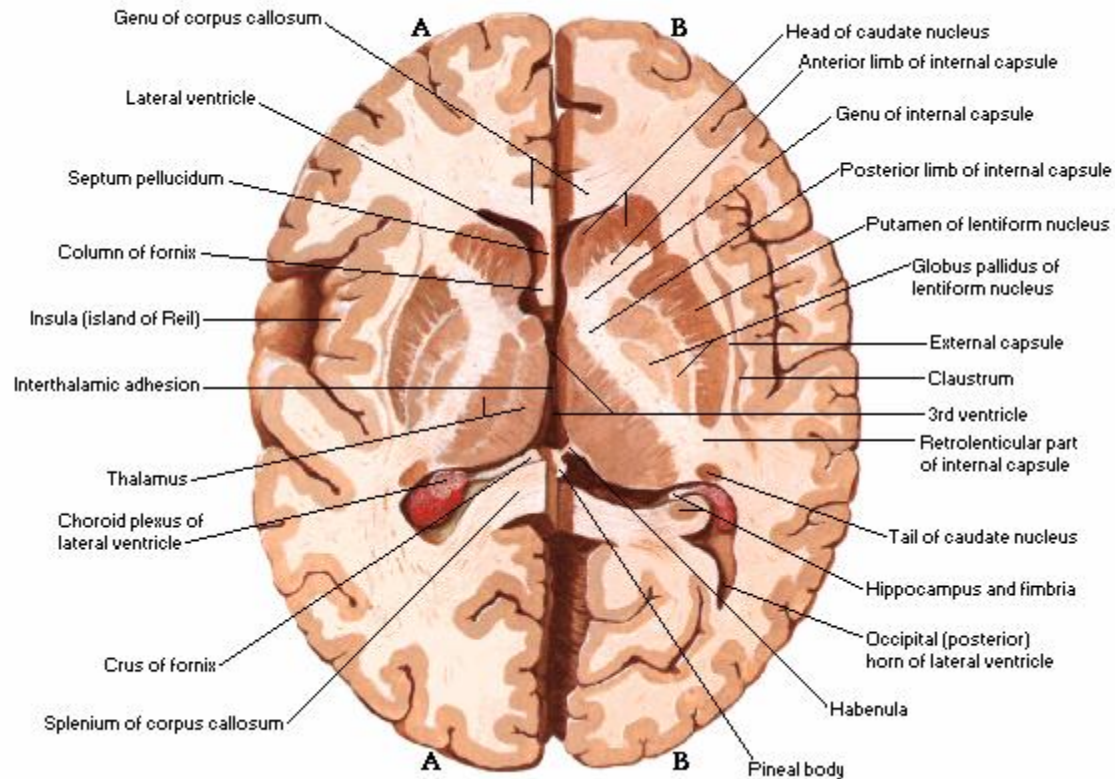


Coronal Section - Posterior View

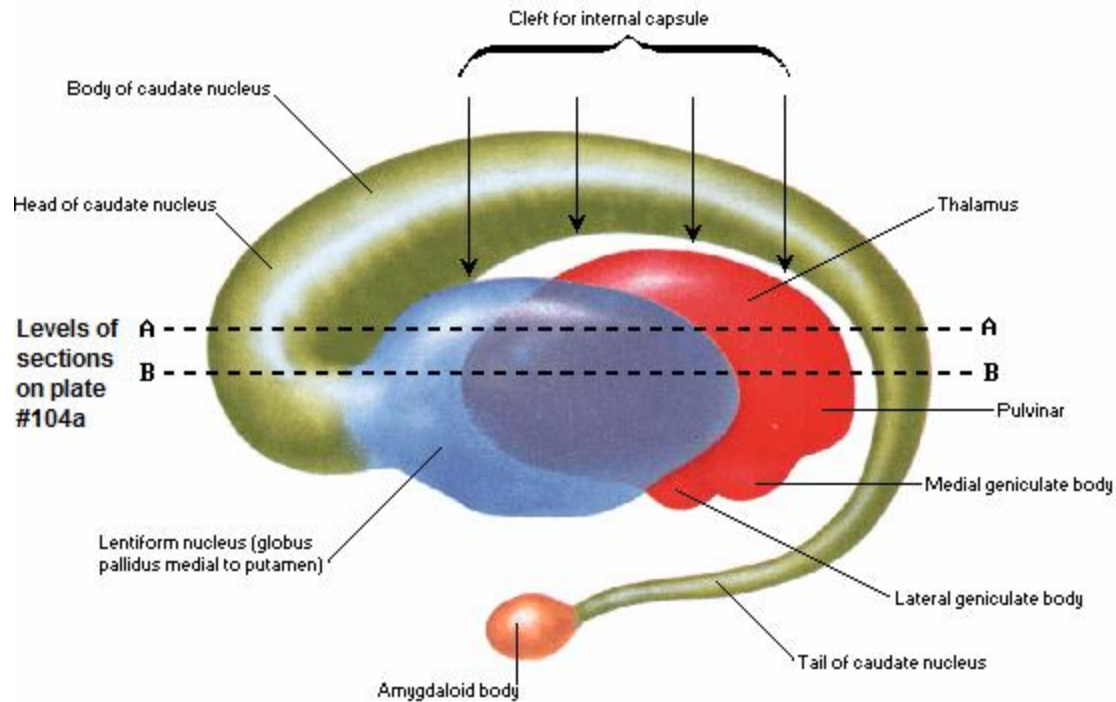




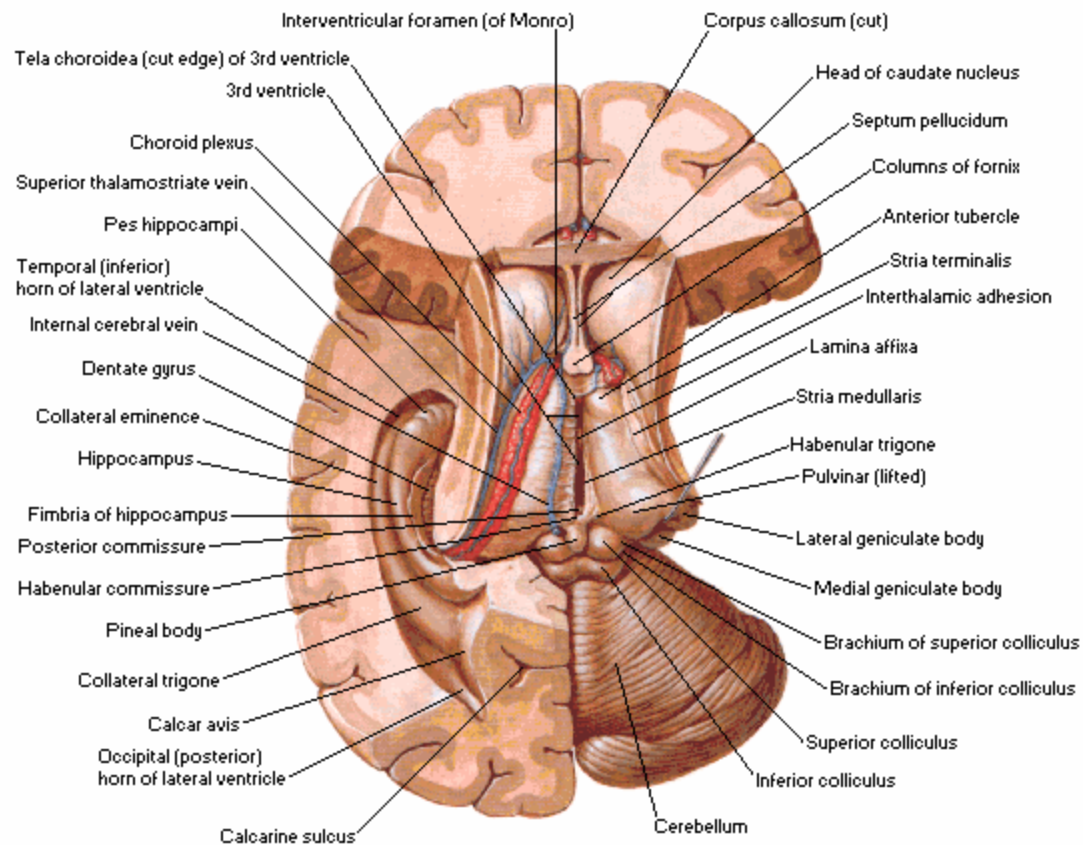
Horizontal Sections through Cerebrum



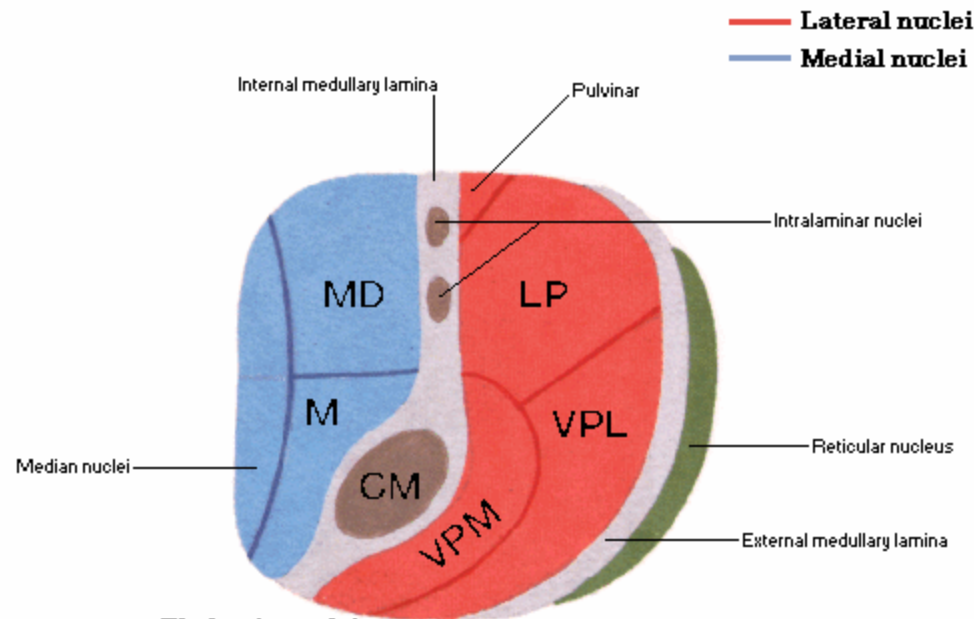
Left Lateral View



Interrelationship of thalamus, lentiform nucleus, caudate nucleus and amygdaloid body



Schematic Section

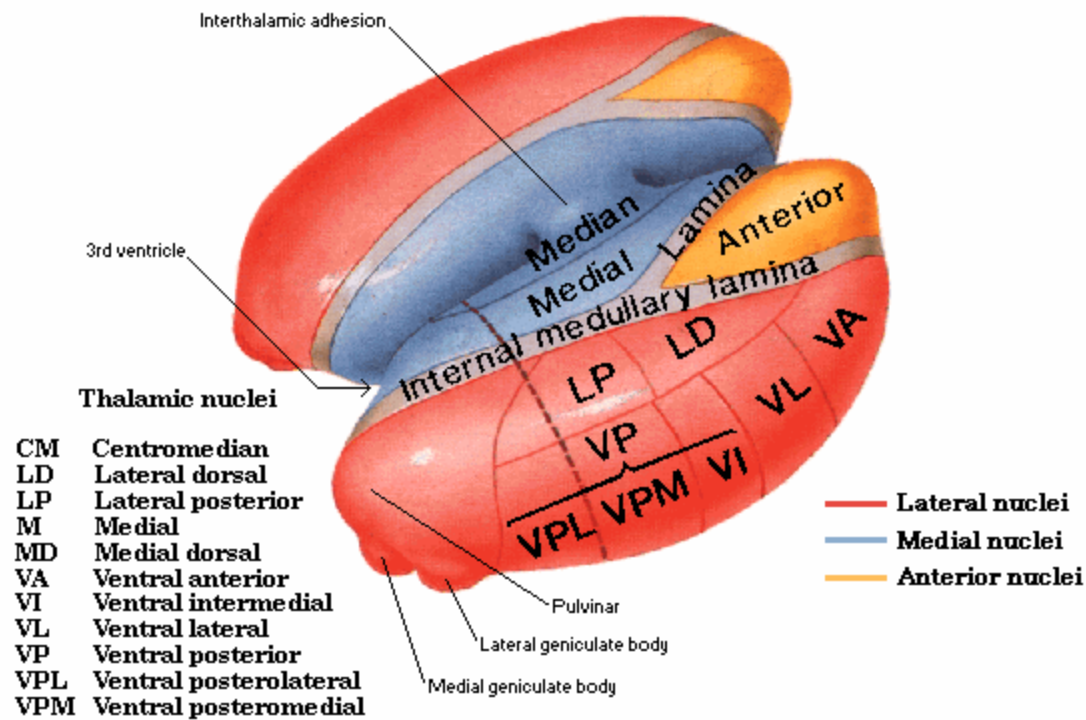


Thalamic nuclei

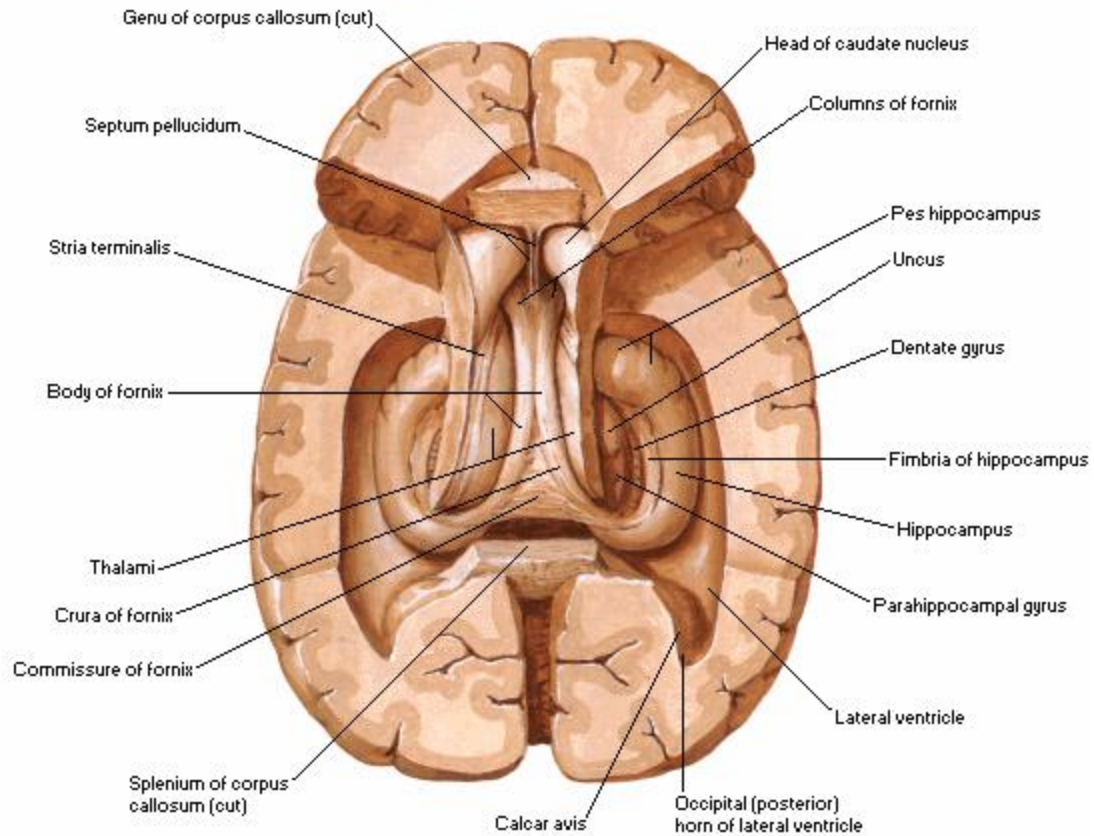
CM	Centromedian	VA	Ventral anterior
LD	Lateral dorsal	VI	Ventral intermediate
LP	Lateral posterior	VL	Ventral lateral
M	Medial	VP	Ventral posterior
MD	Medial dorsal	VPL	Ventral posterolateral
		VPM	Ventral posteromedial

Schematic section through
thalamus (at level of broken
line shown in plate #105C)

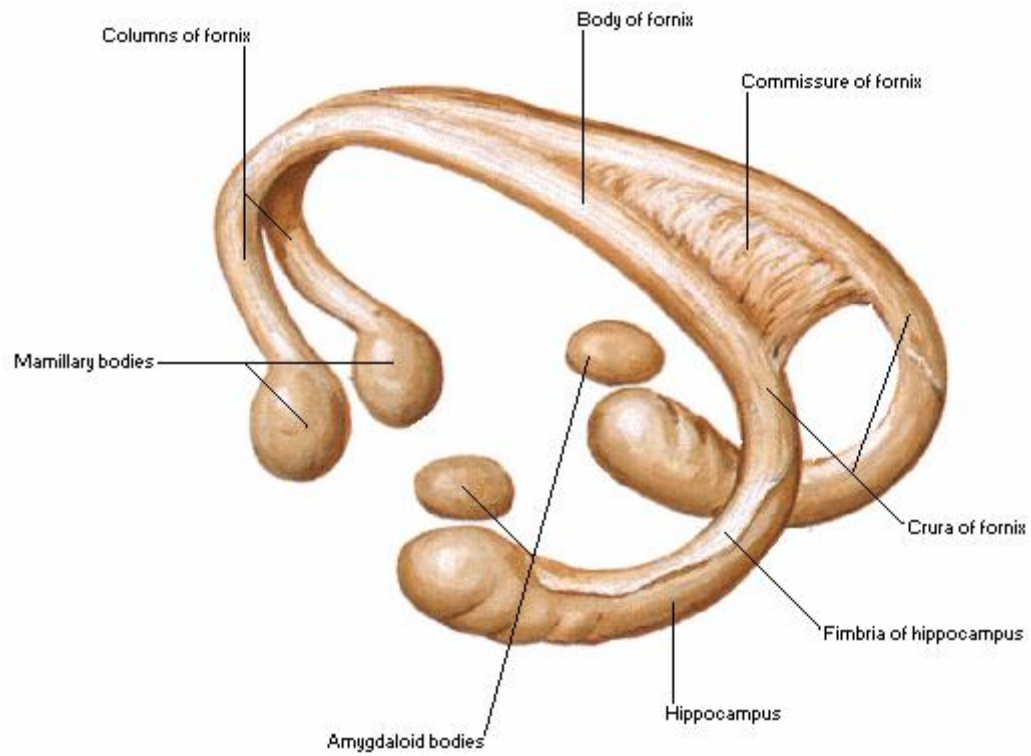
Schematic Representation of Thalamus



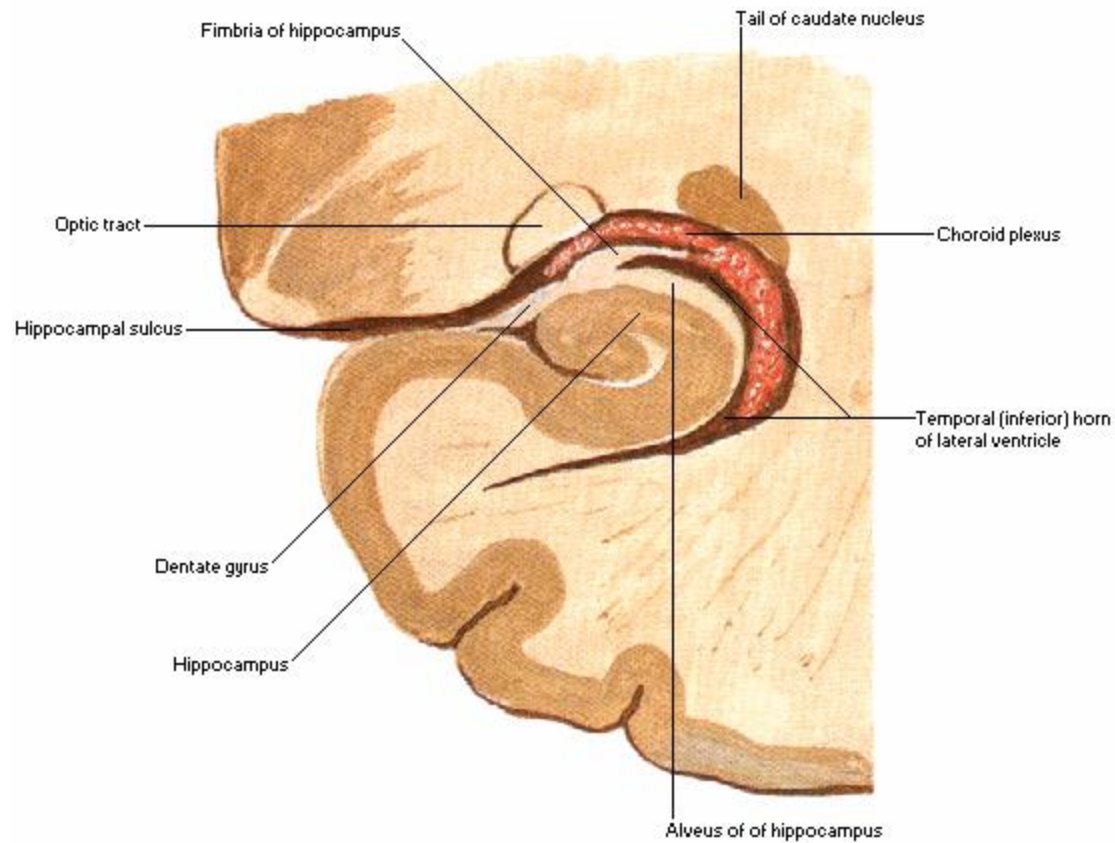
Superior Dissection



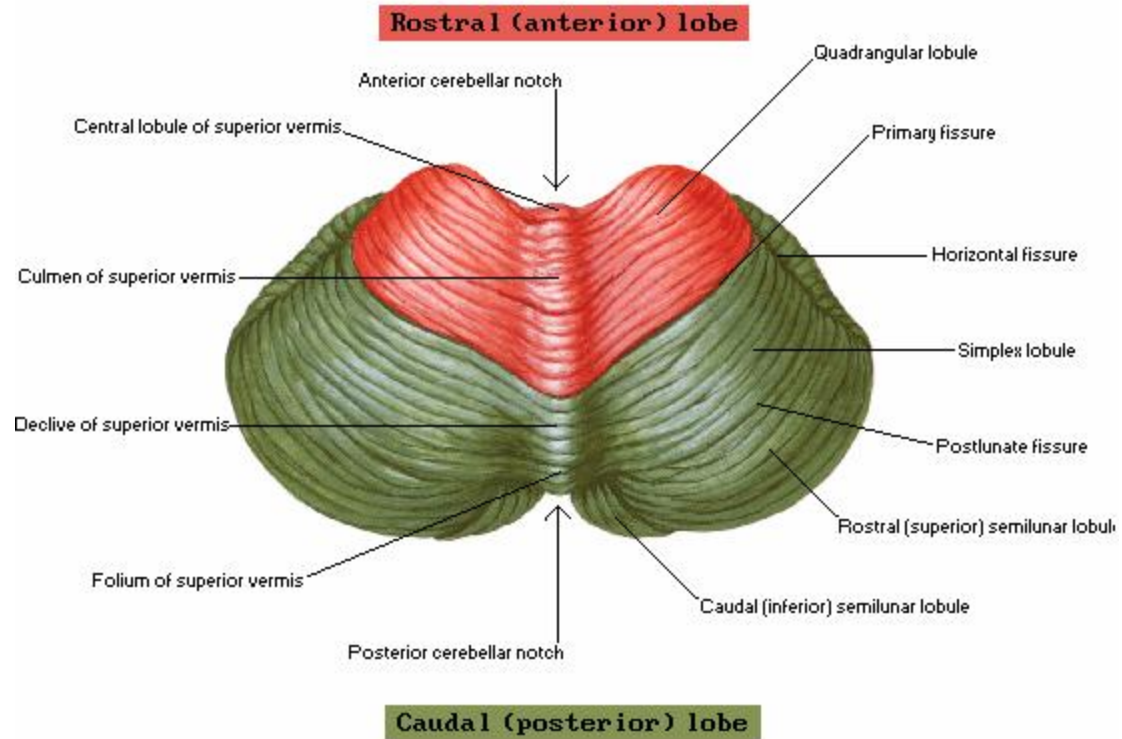
Schema of Fornix



Coronal Section - Posterior View



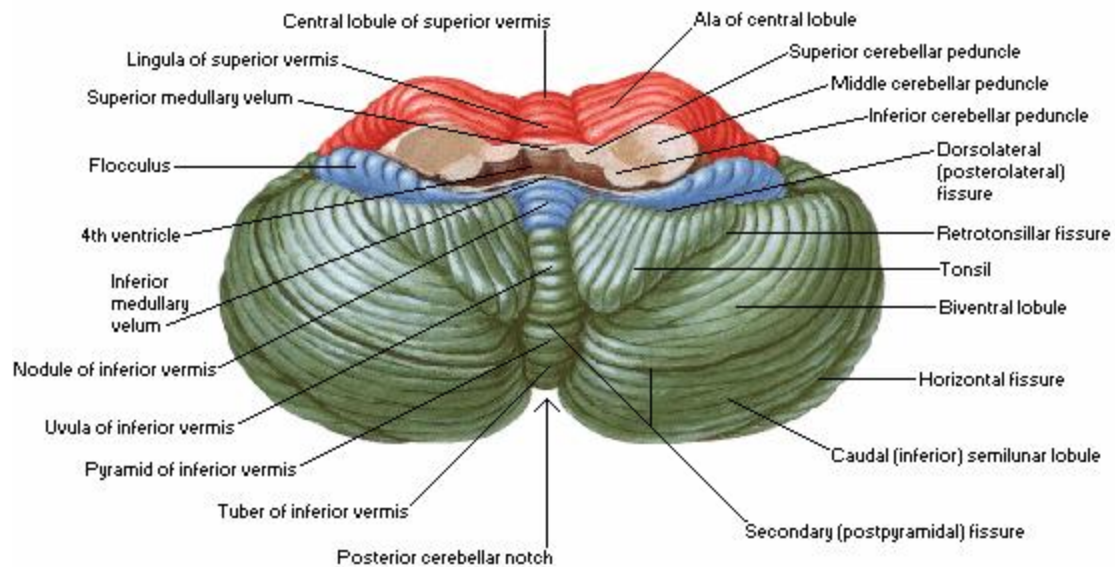
Superior Surface



Inferior Surface

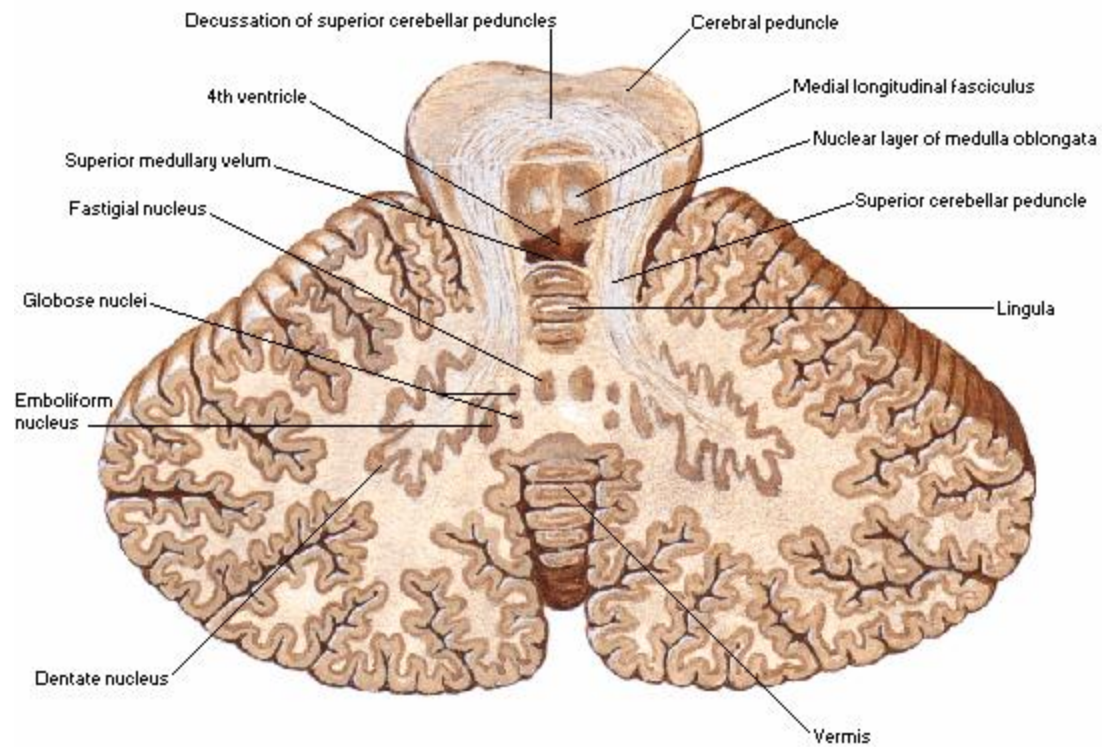
Rostral (anterior) lobe

Flocculonodular lobe

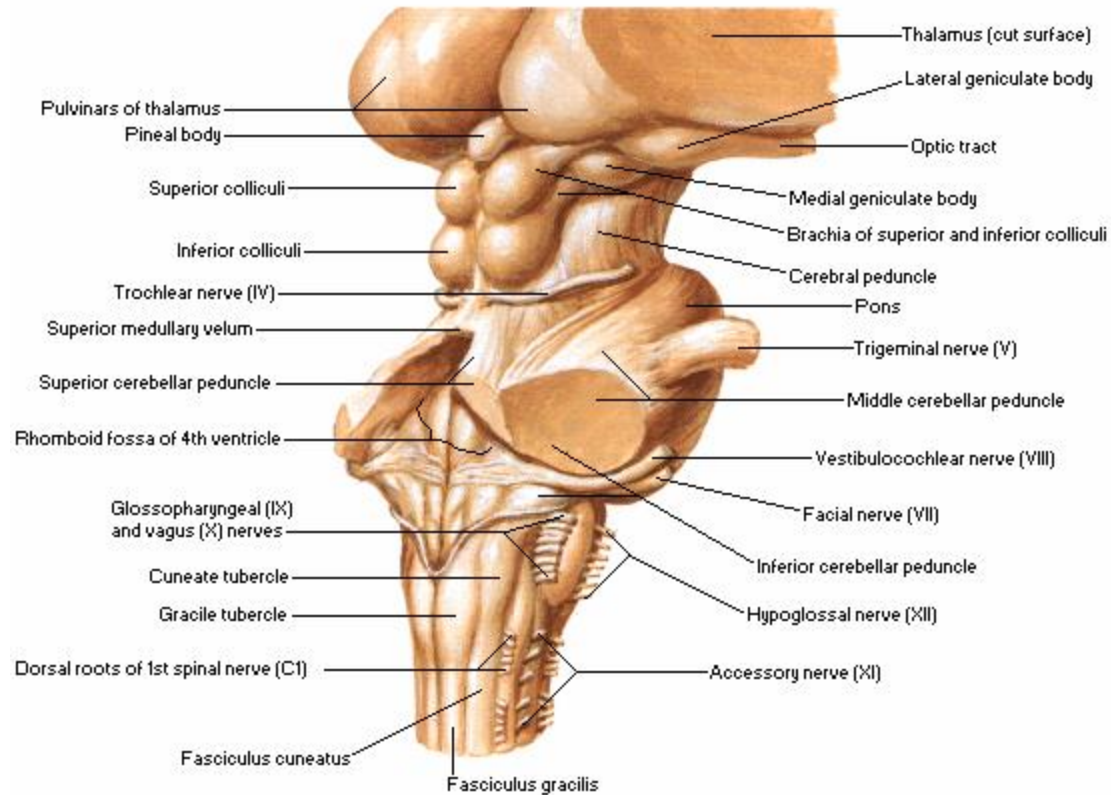


Caudal (posterior) lobe

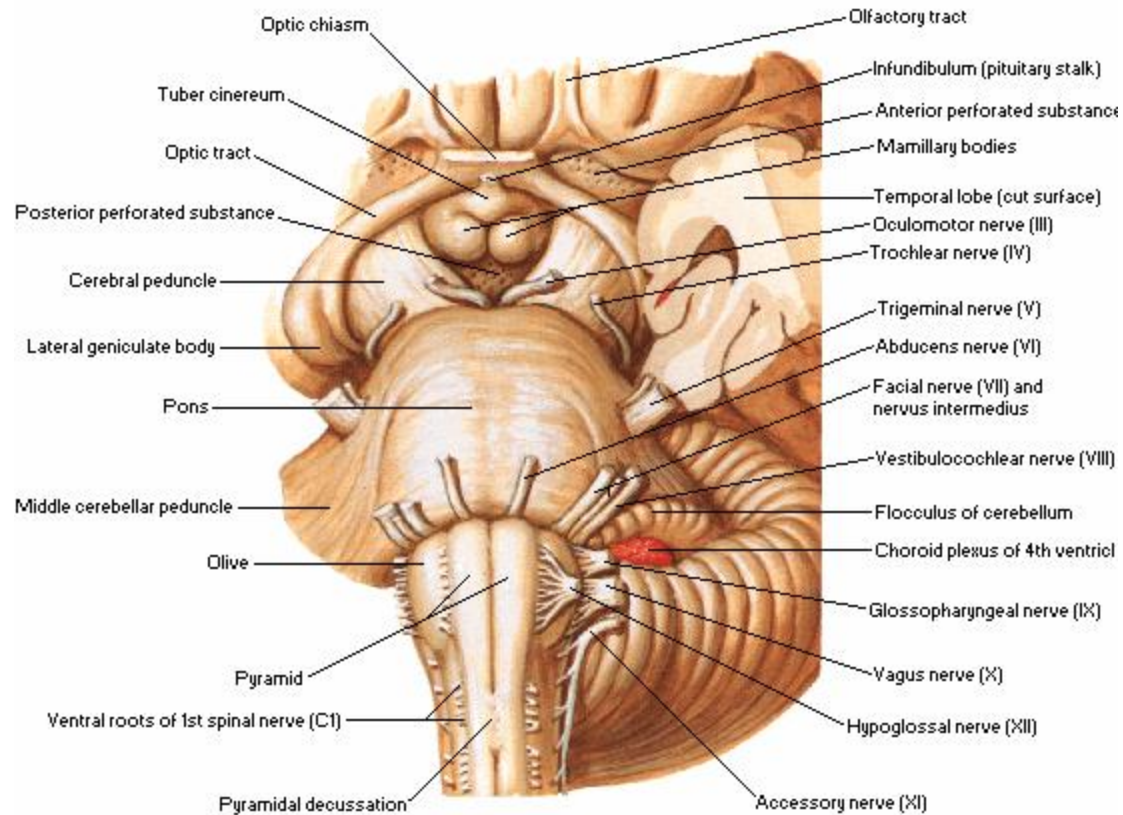
Section in Plane of Superior Cerebellar Peduncle



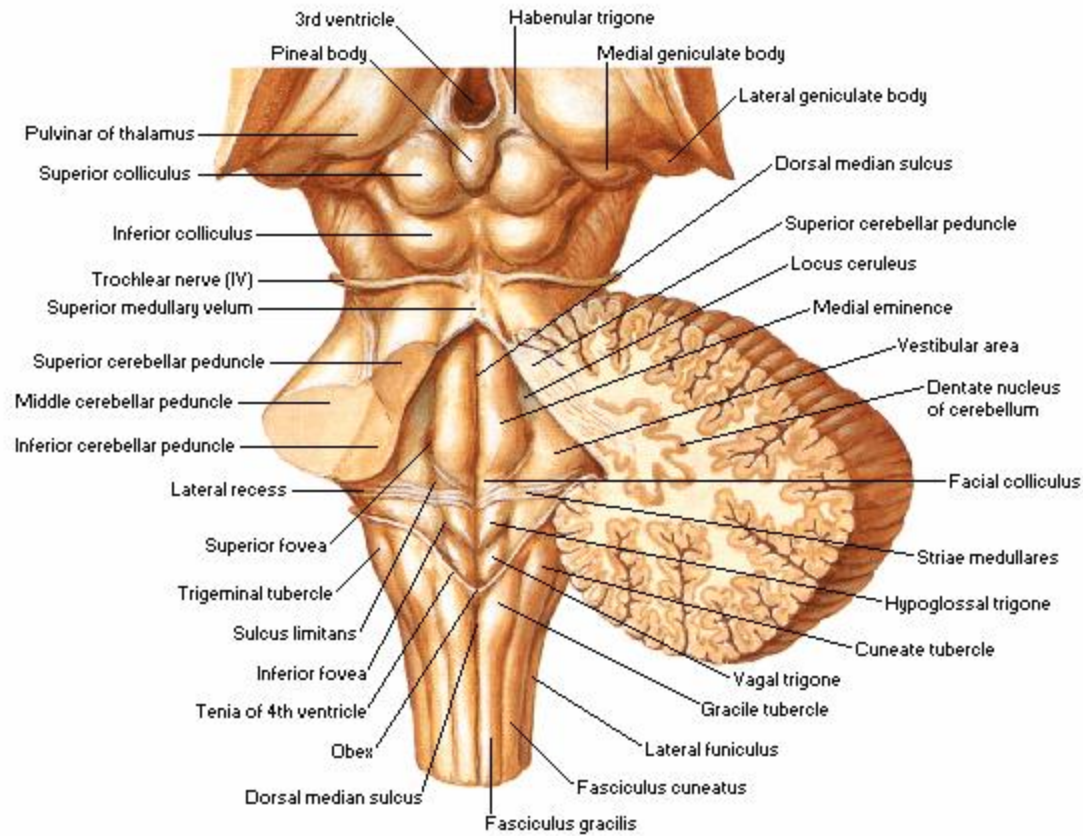
Posterolateral View



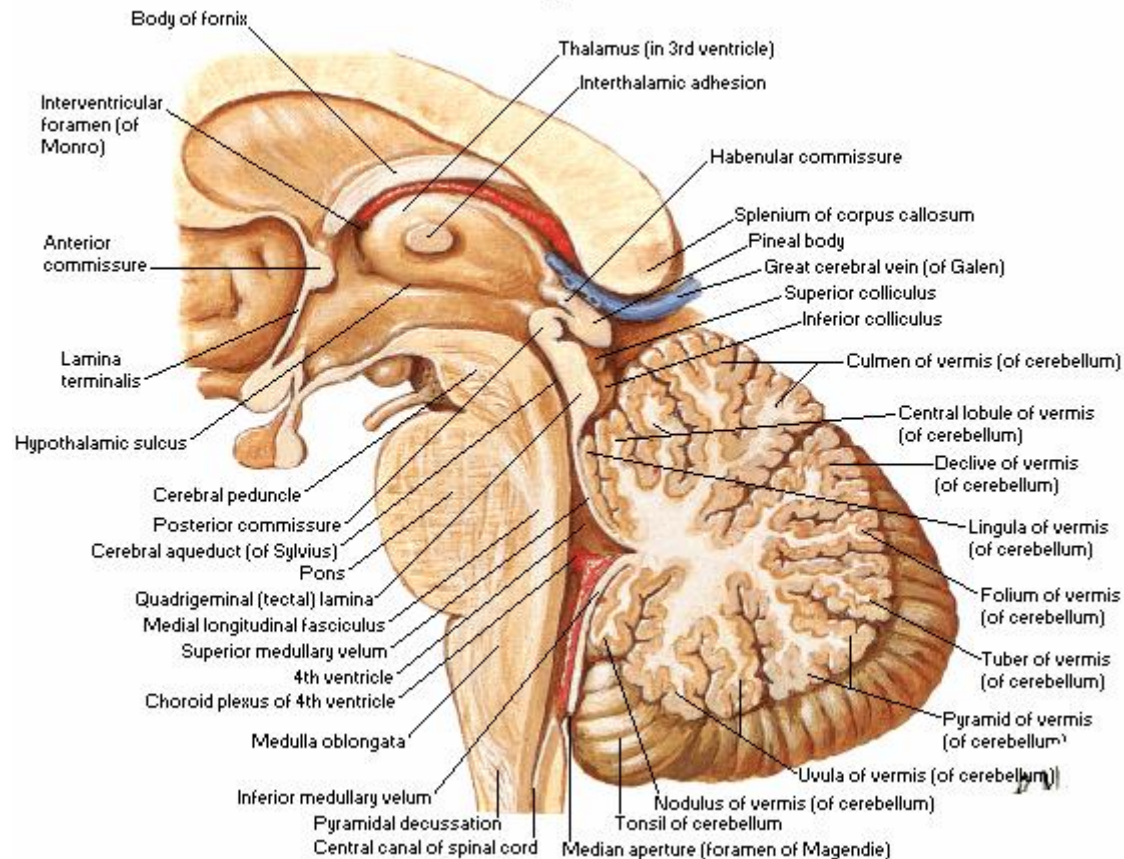
Anterioinferior View



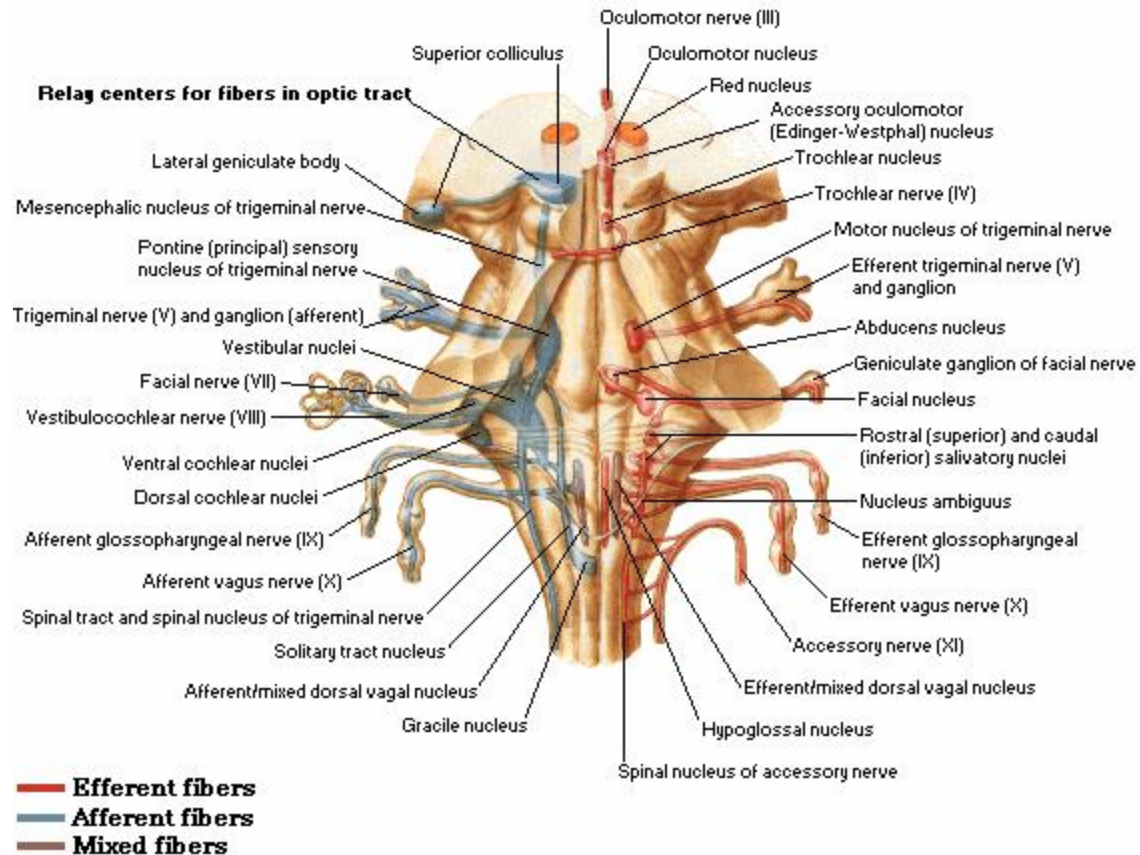
Posterior View



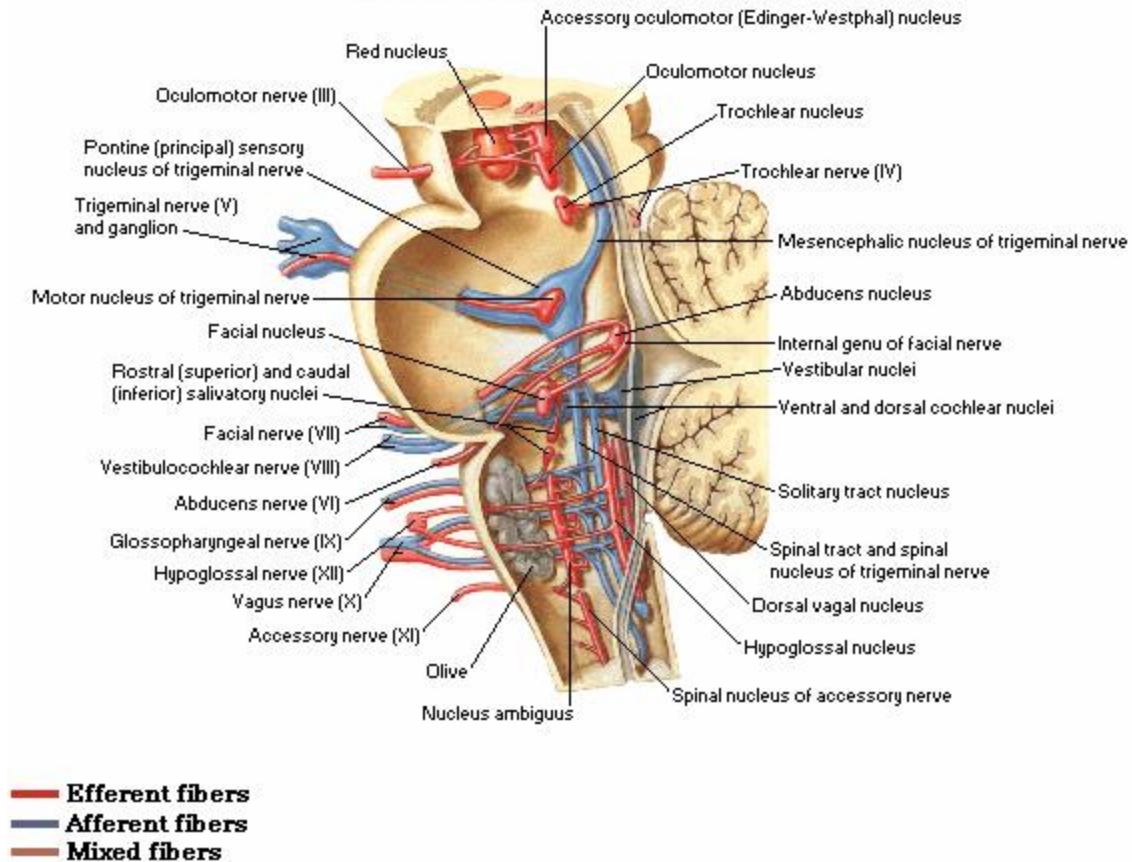
Median Sagittal Section

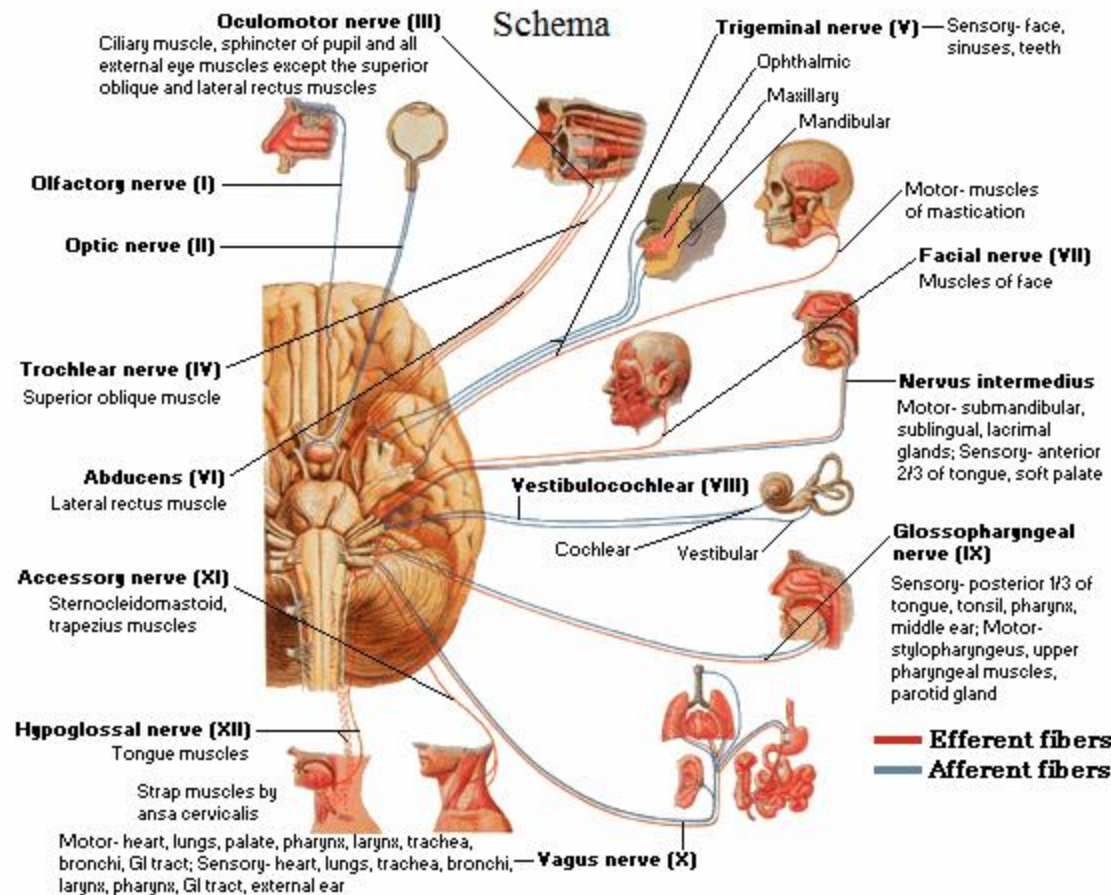


Schema - Posterior Phantom View

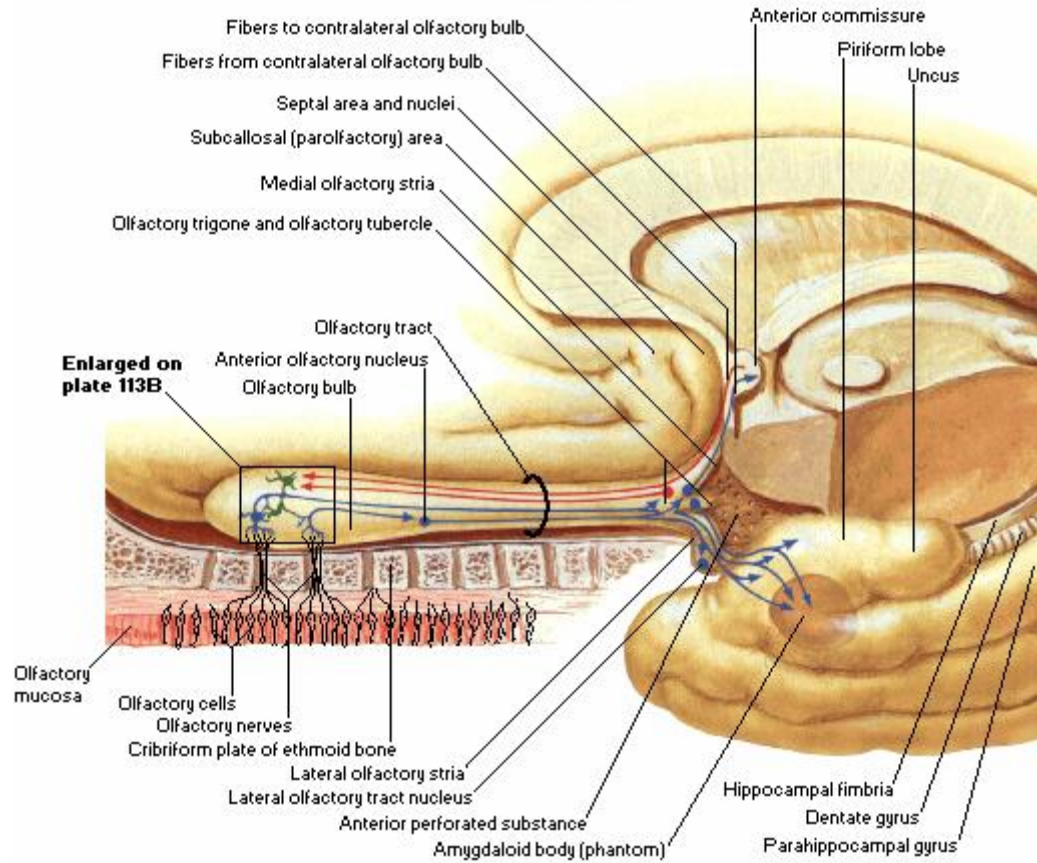


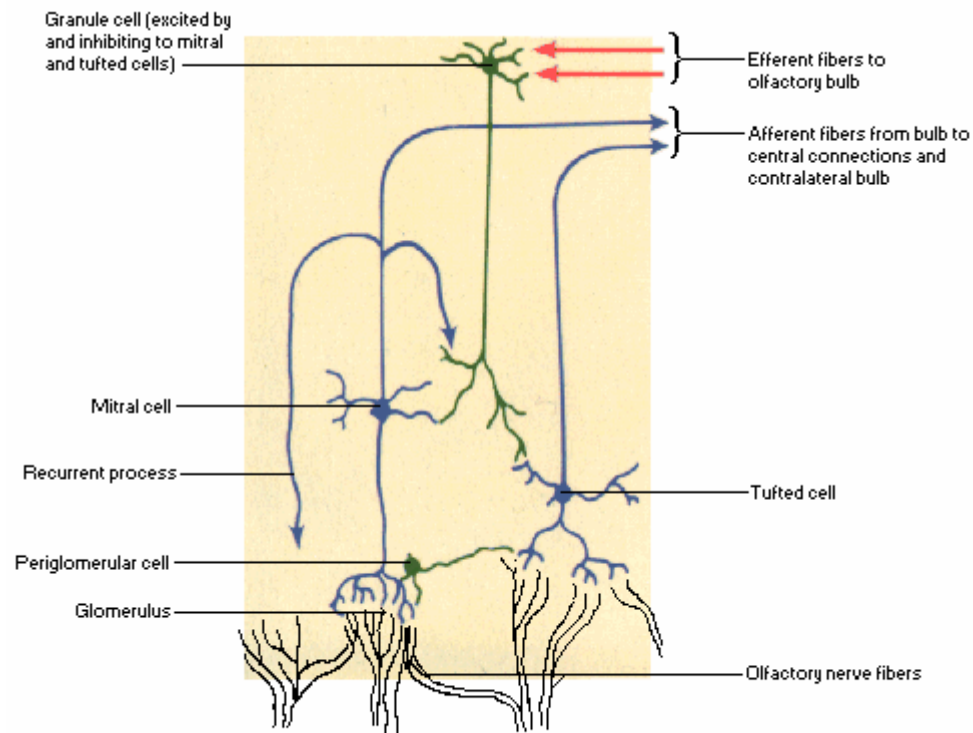
Schema - Medial Dissection





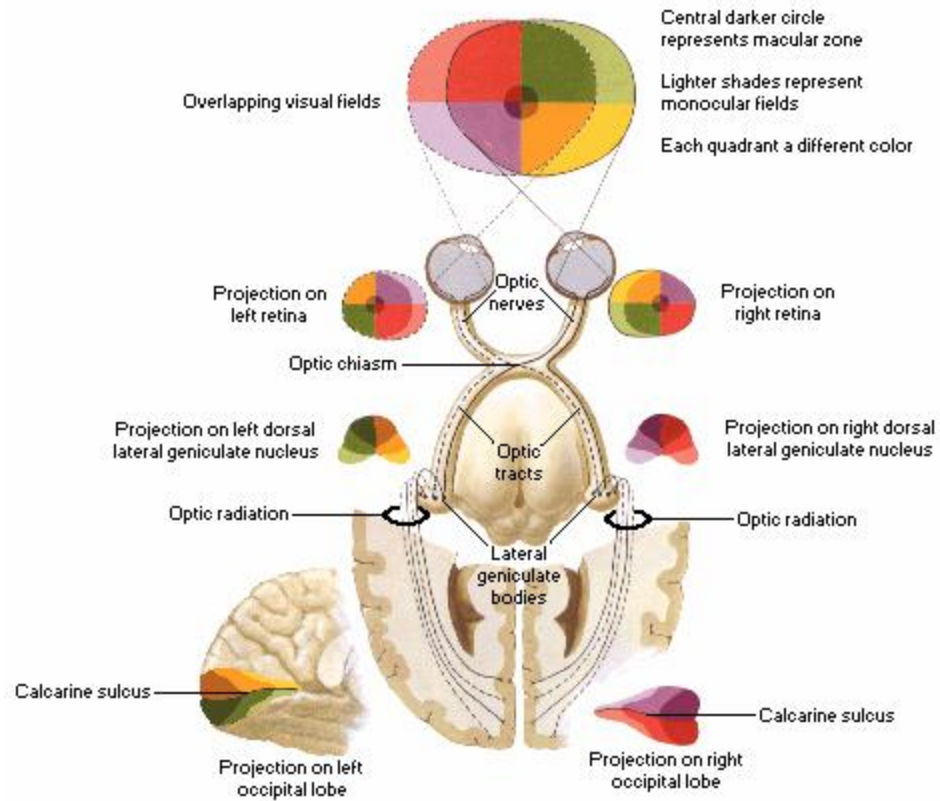
Schema

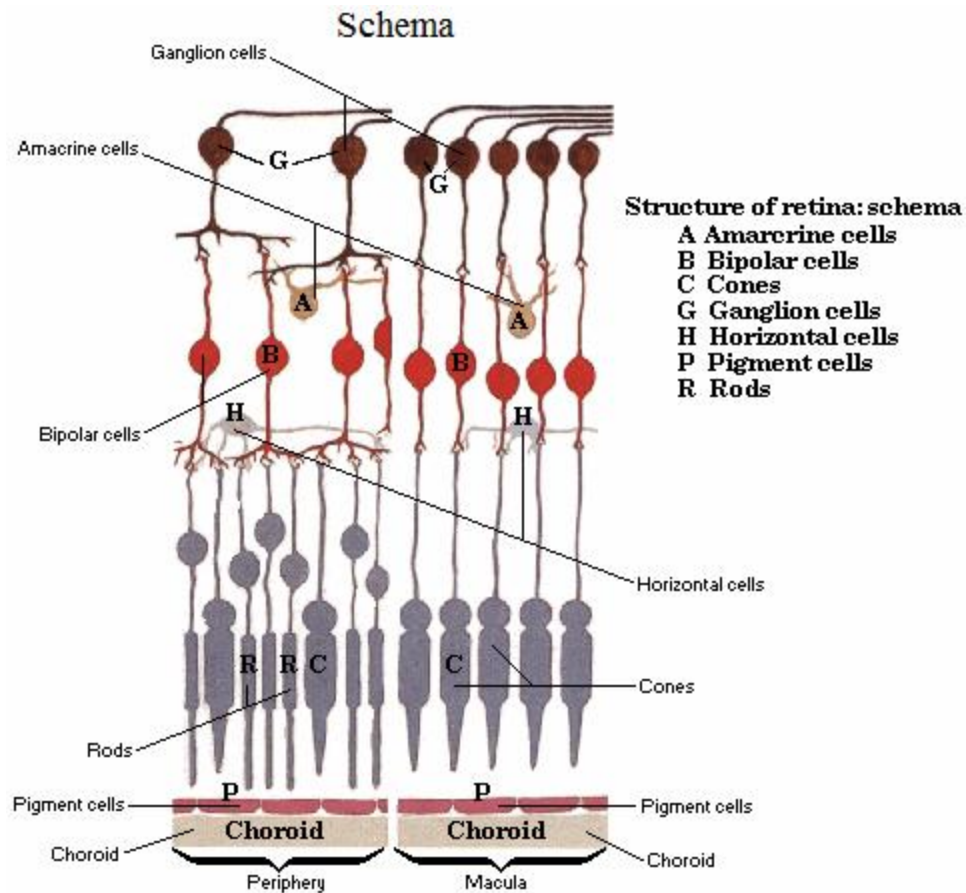




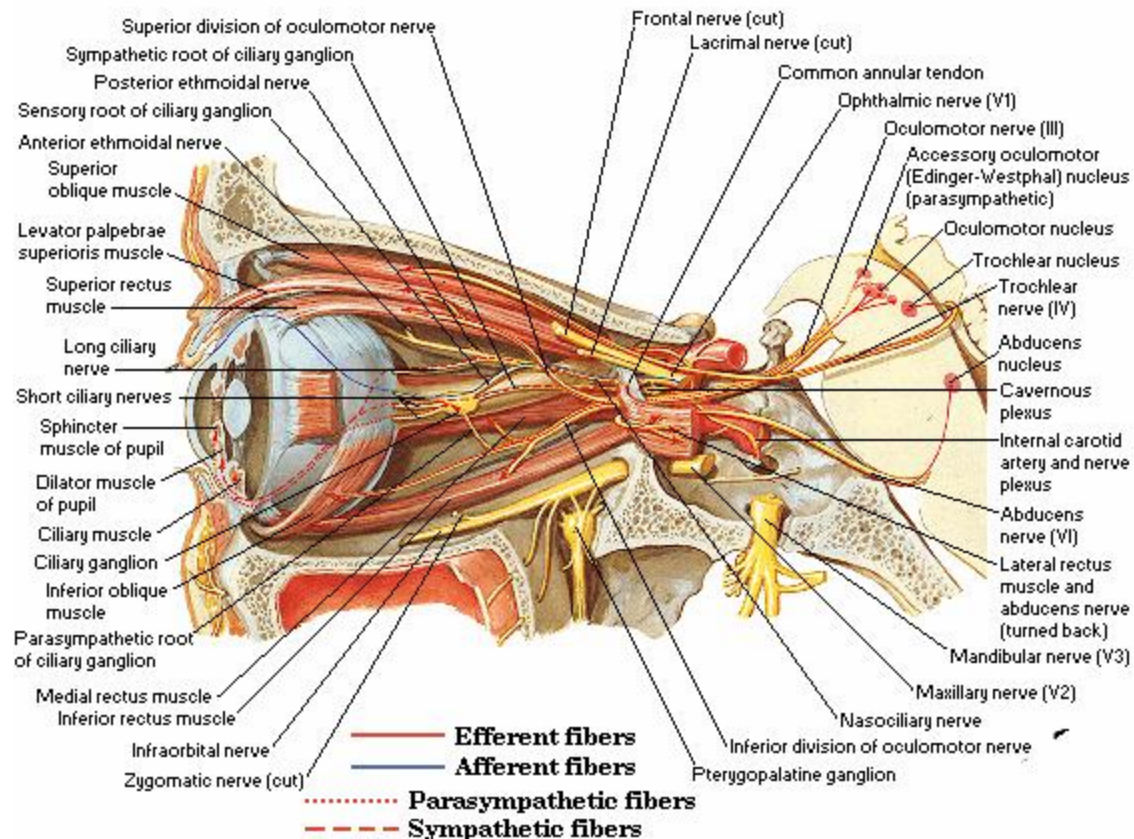
Schema of outlined area on plate 113A

Schema





Schema



— Efferent fibers

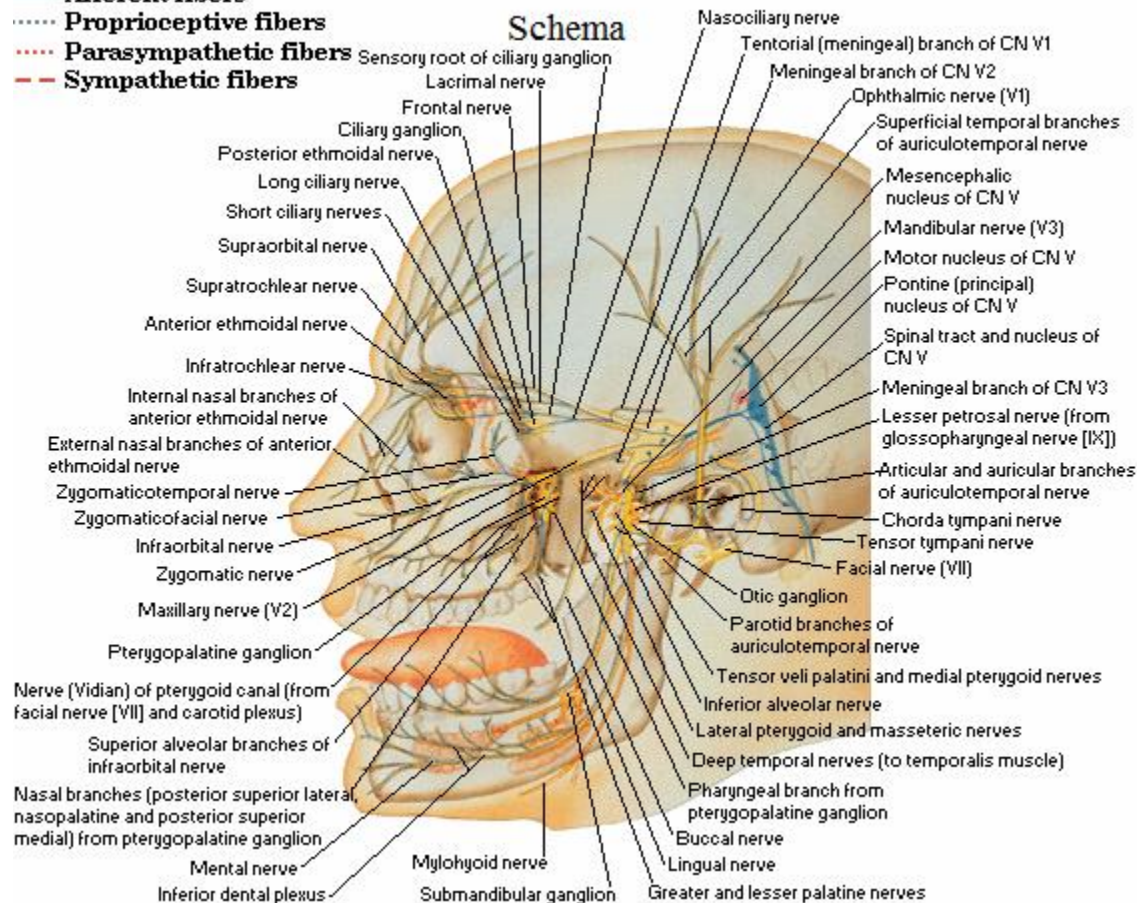
— Afferent fibers

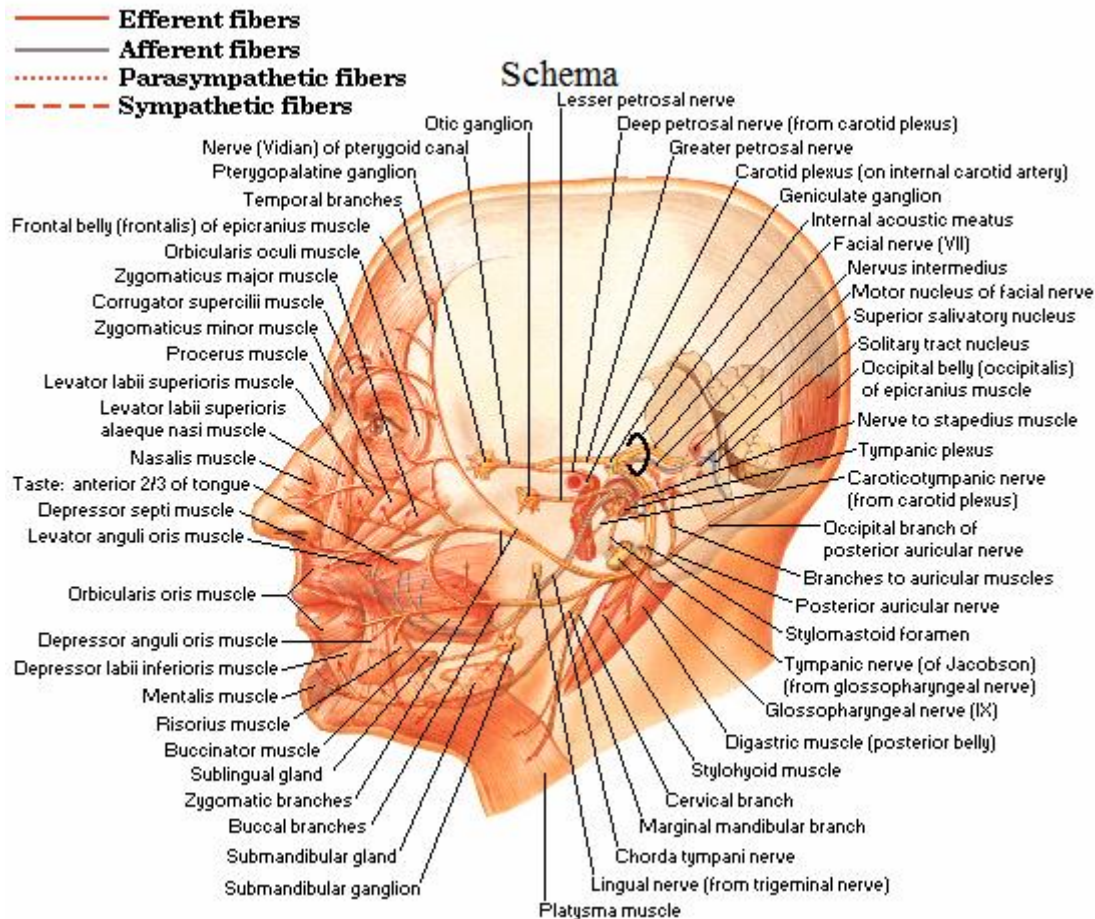
..... Proprioceptive fibers

..... Parasympathetic fibers

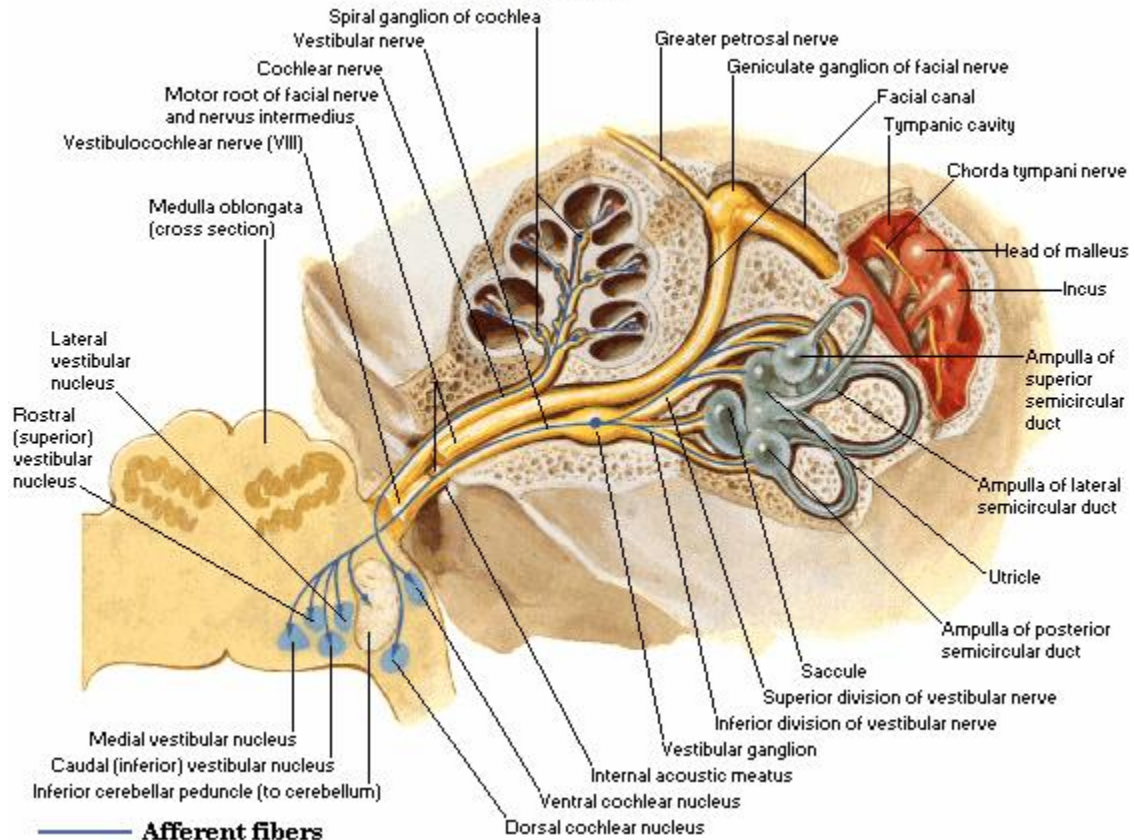
--- Sympathetic fibers

Schema

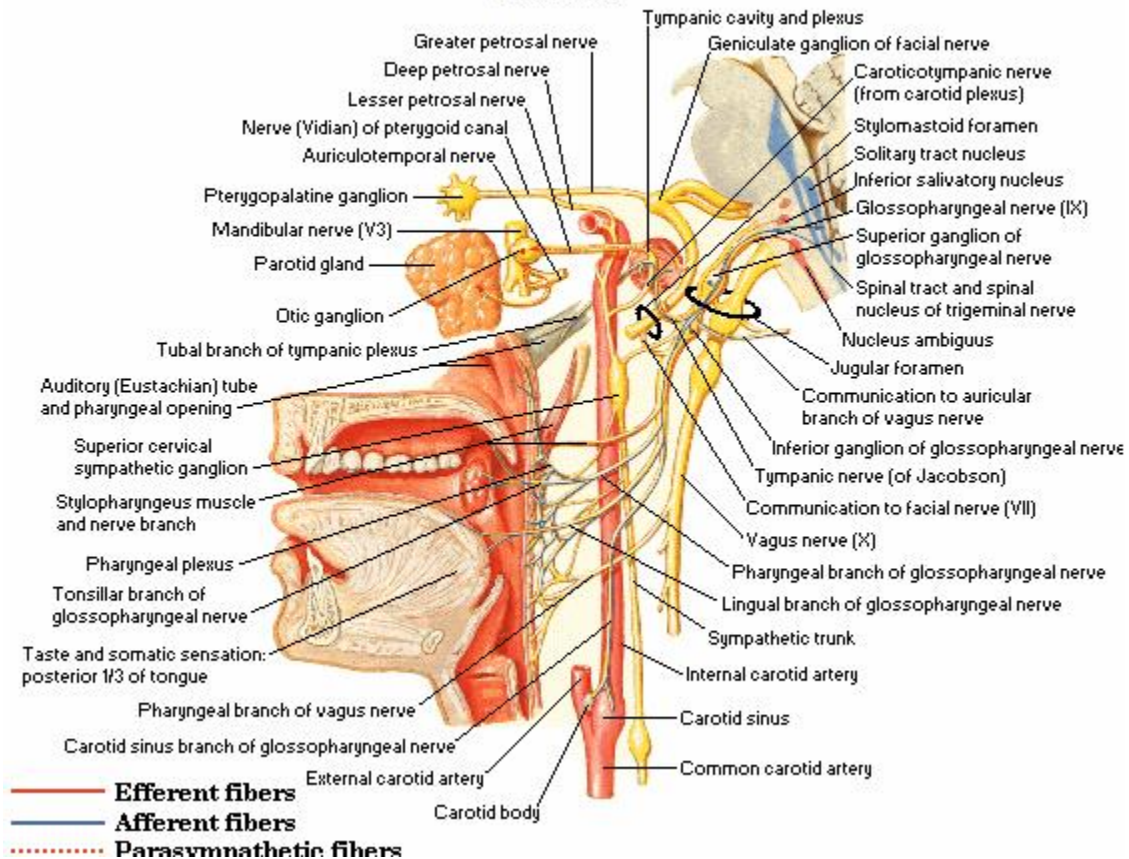




Schema

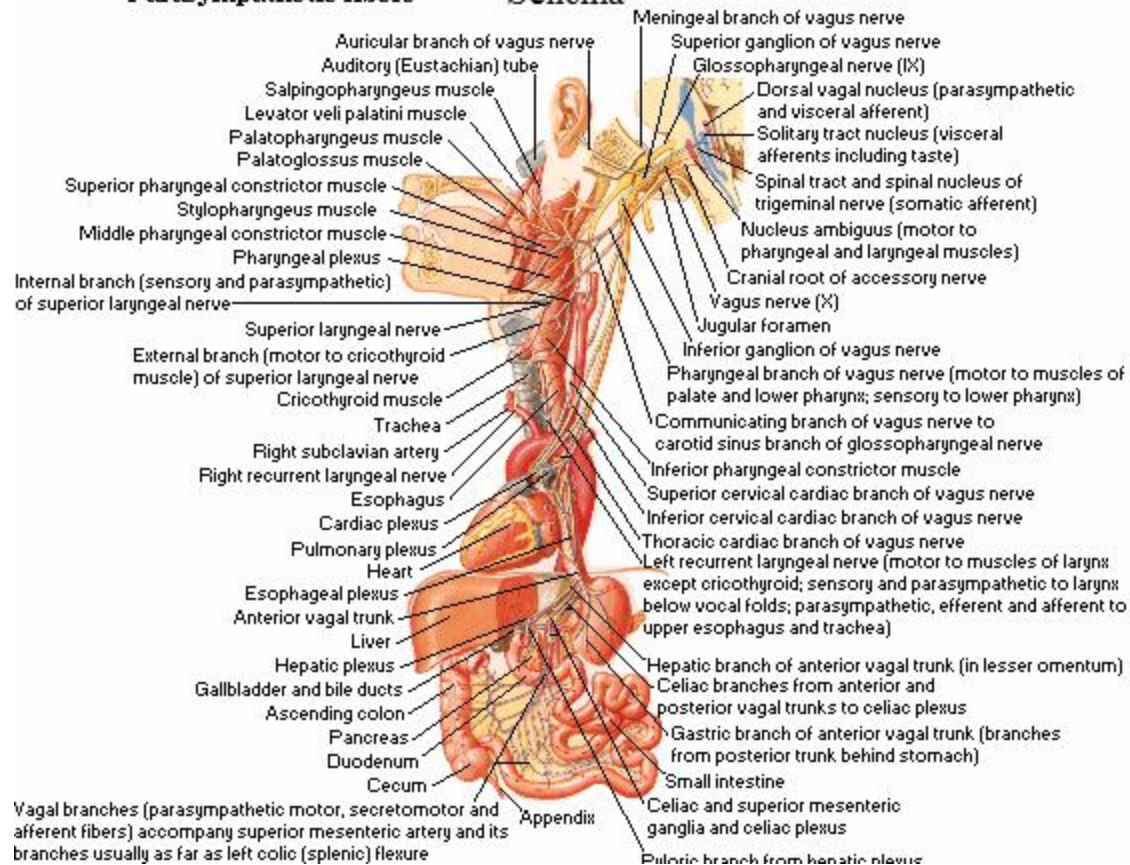


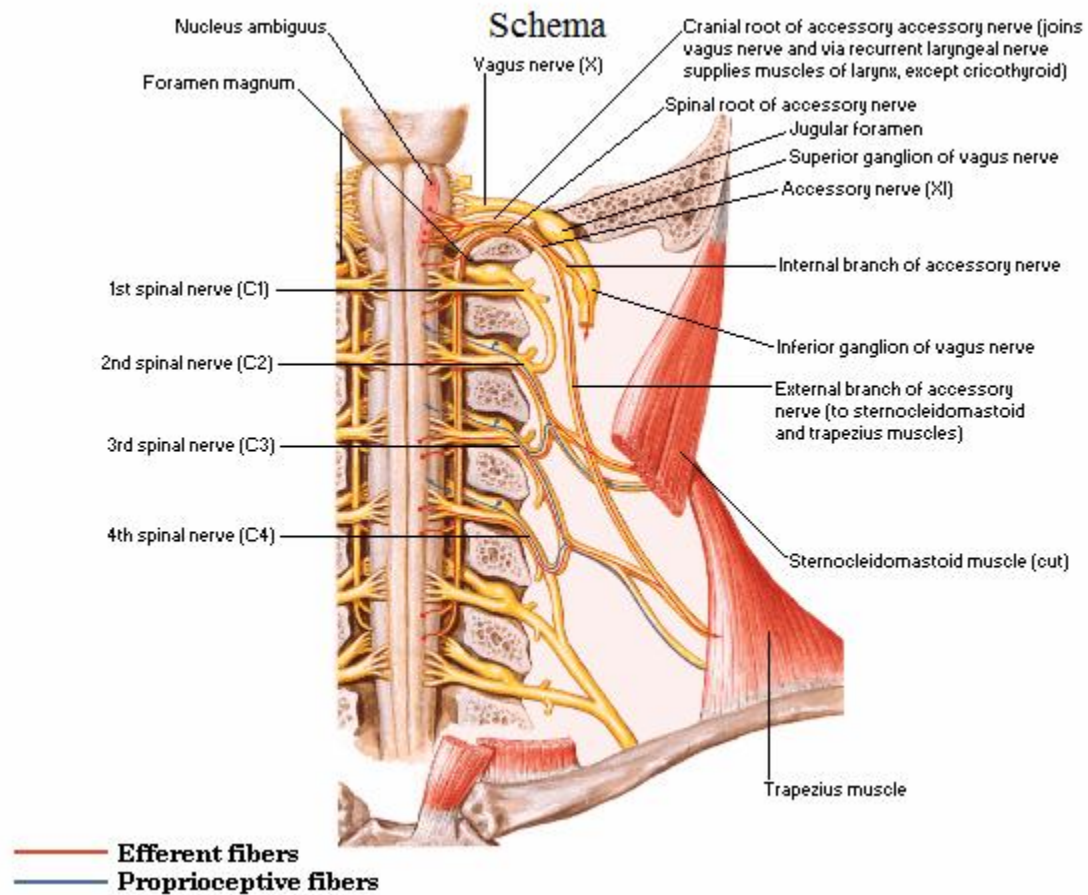
Schema



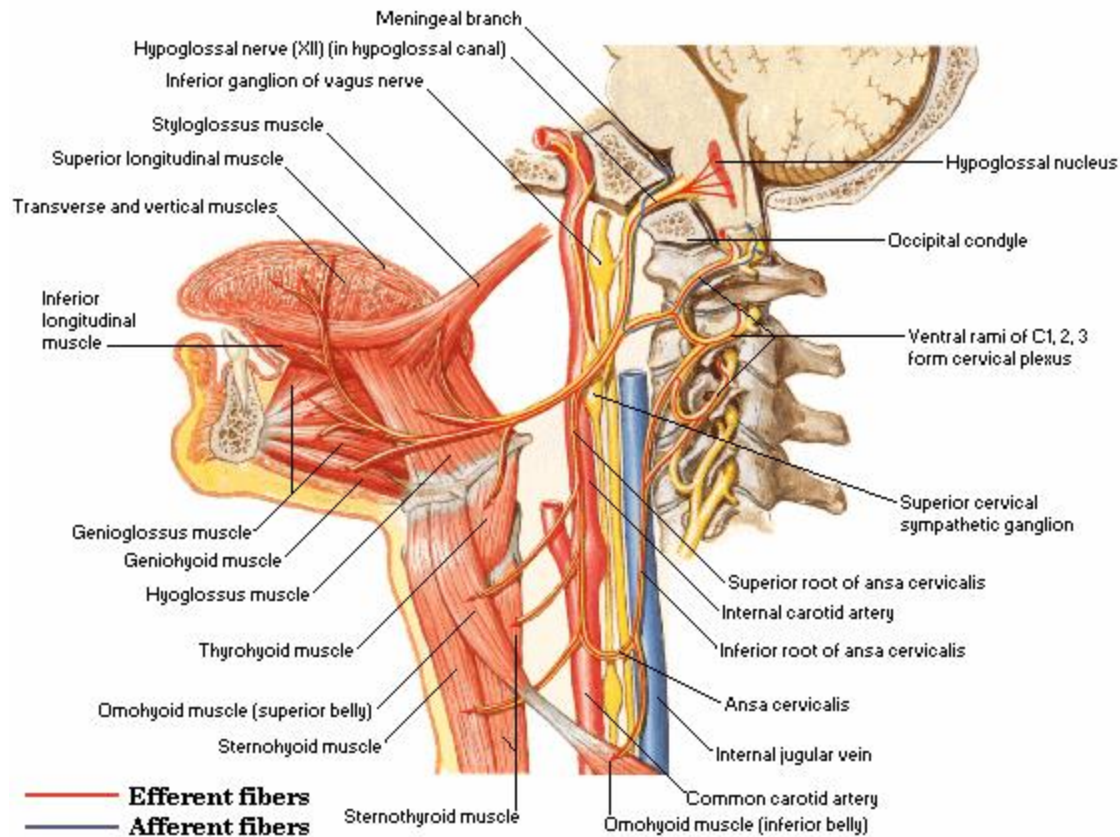
- **Efferent fibers**
— **Afferent fibers**
- - - **Parasympathetic fibers**

Schema

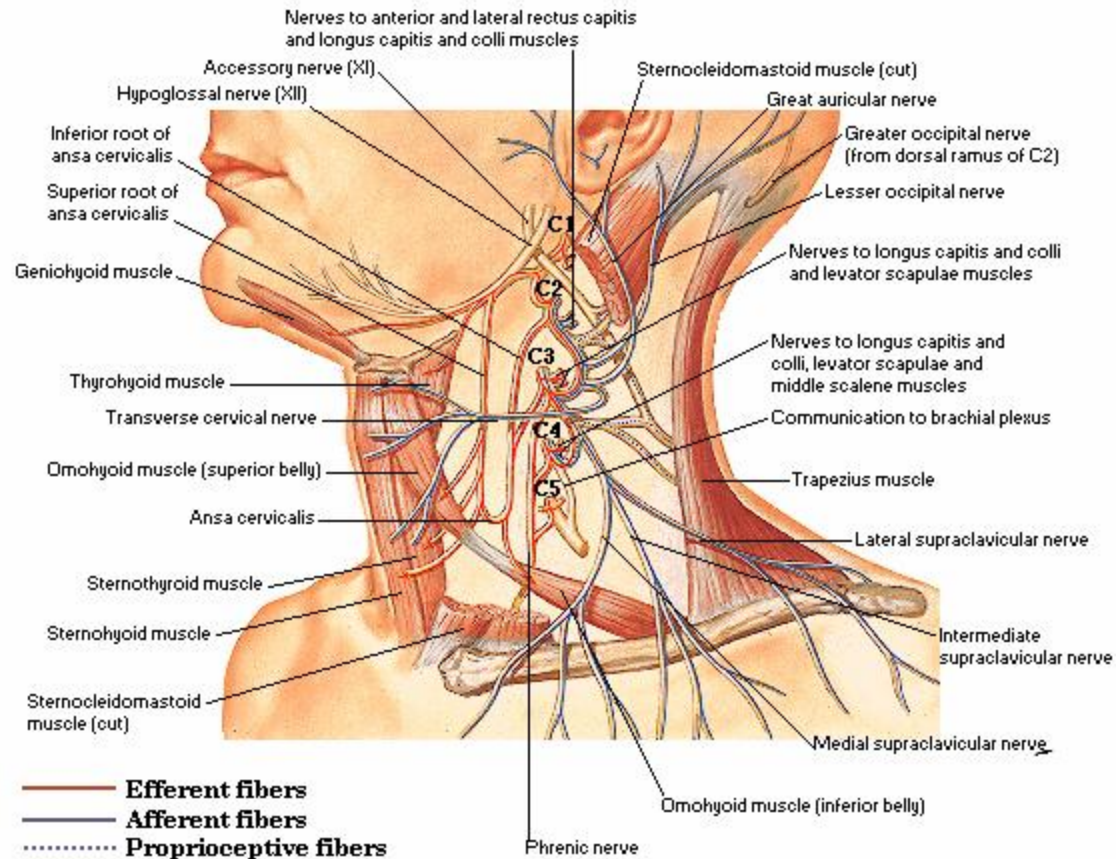


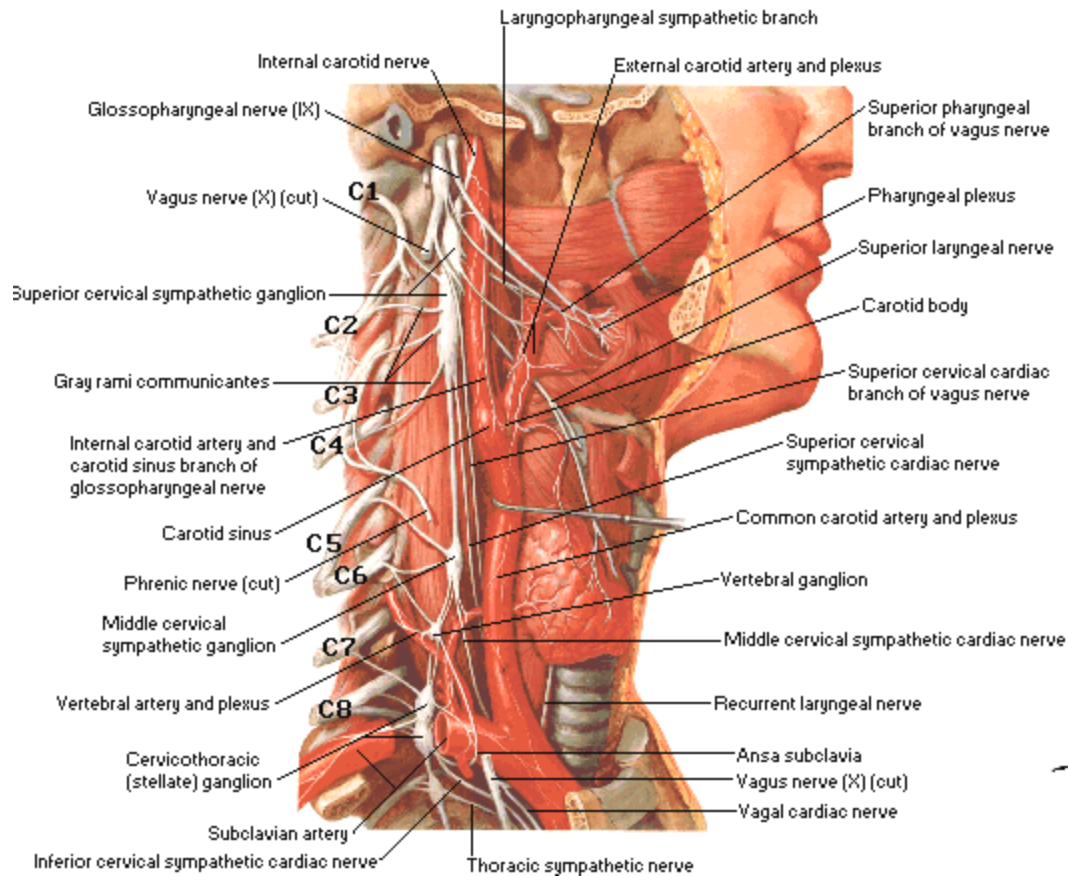


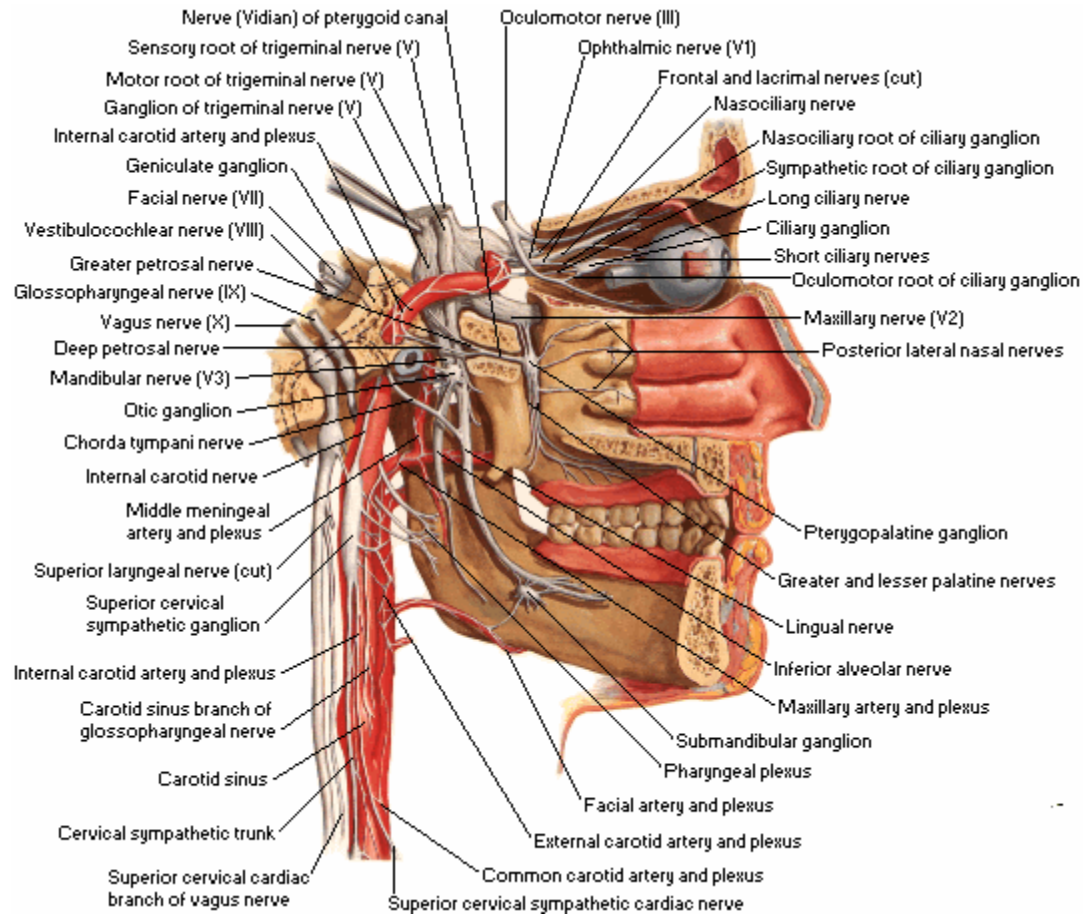
Schema



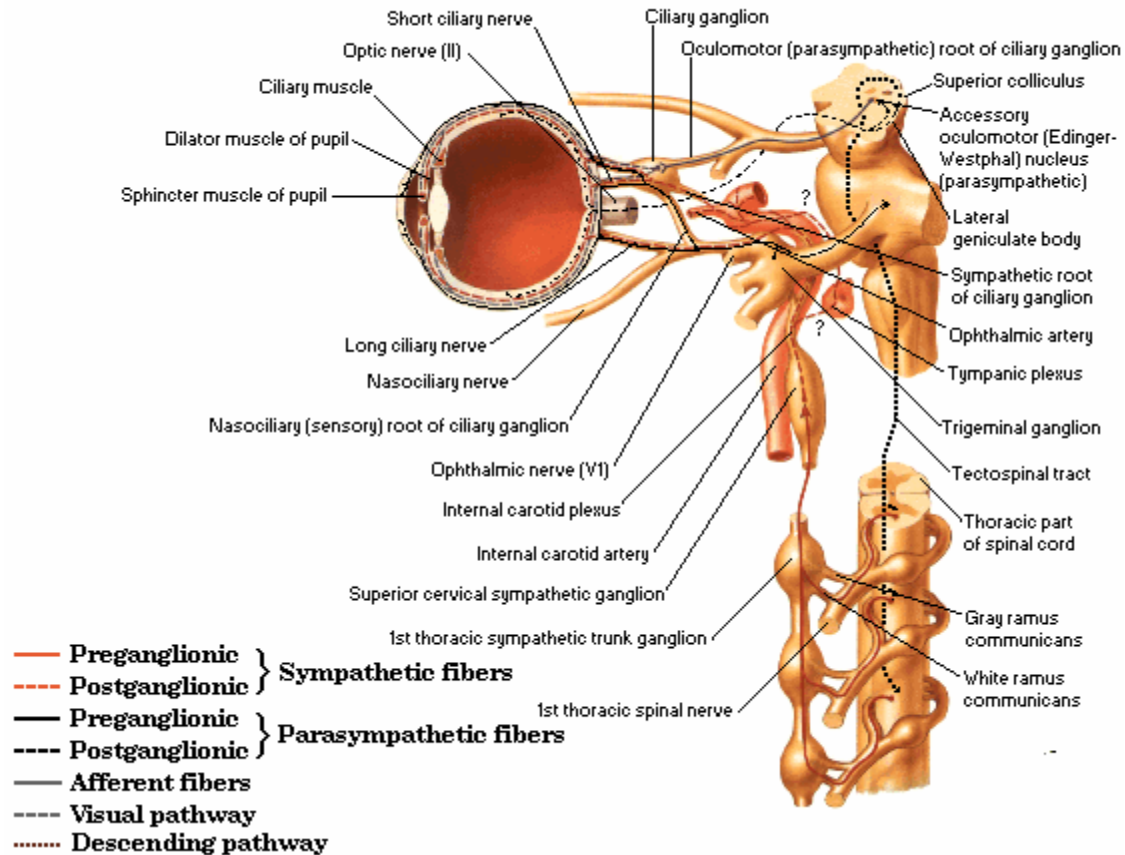
Schema



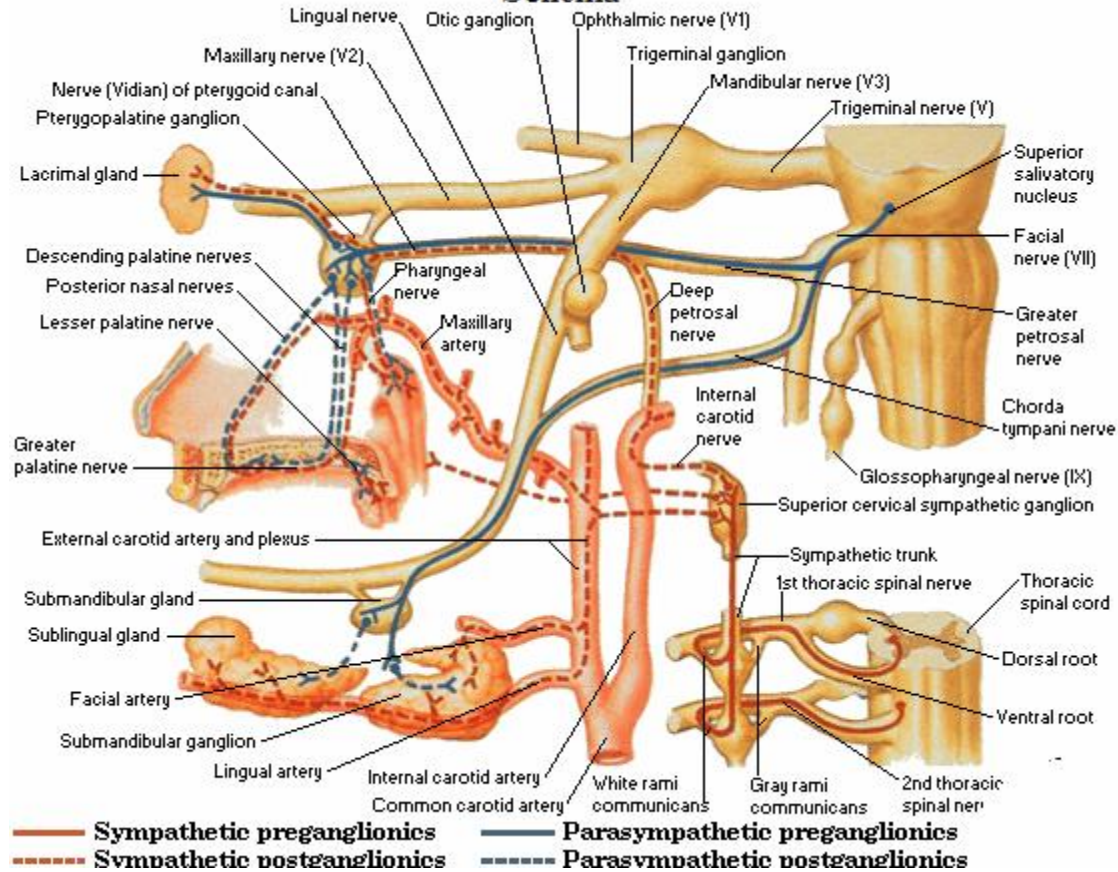


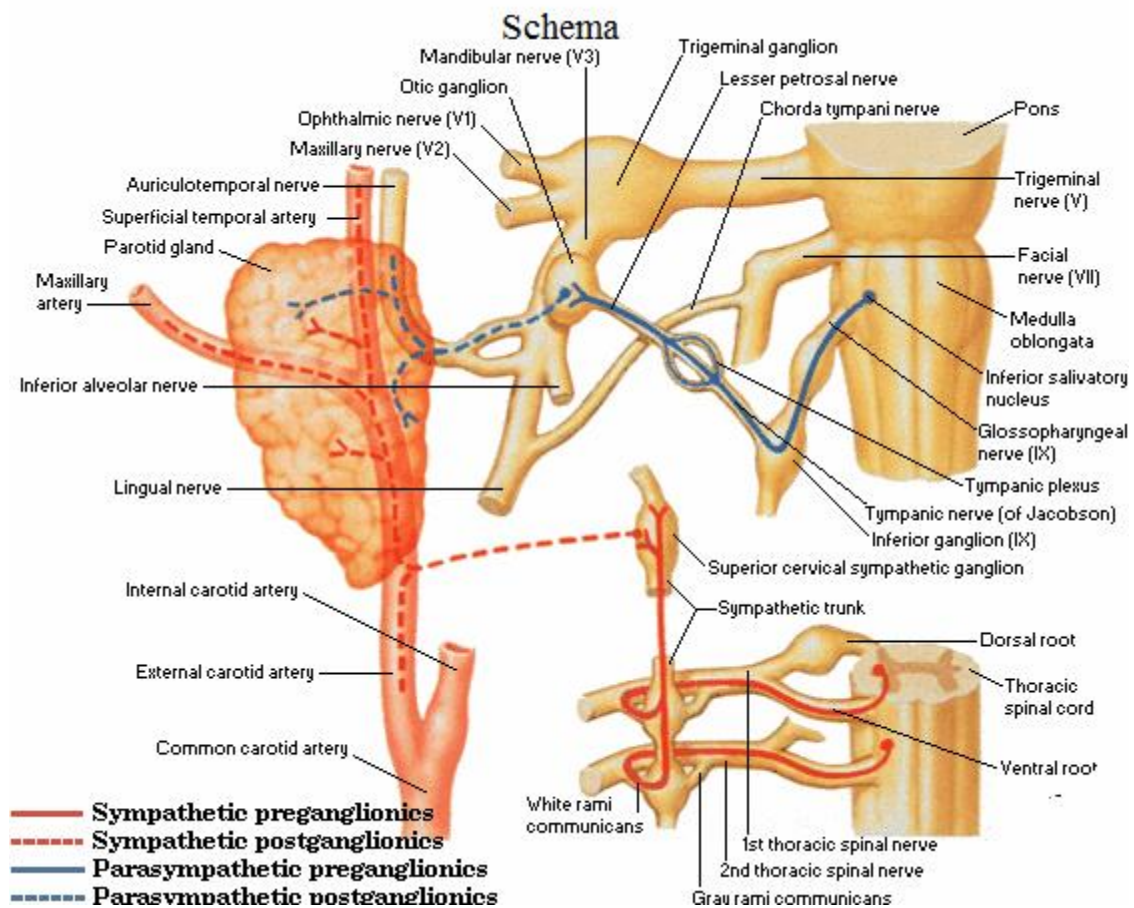


Schema



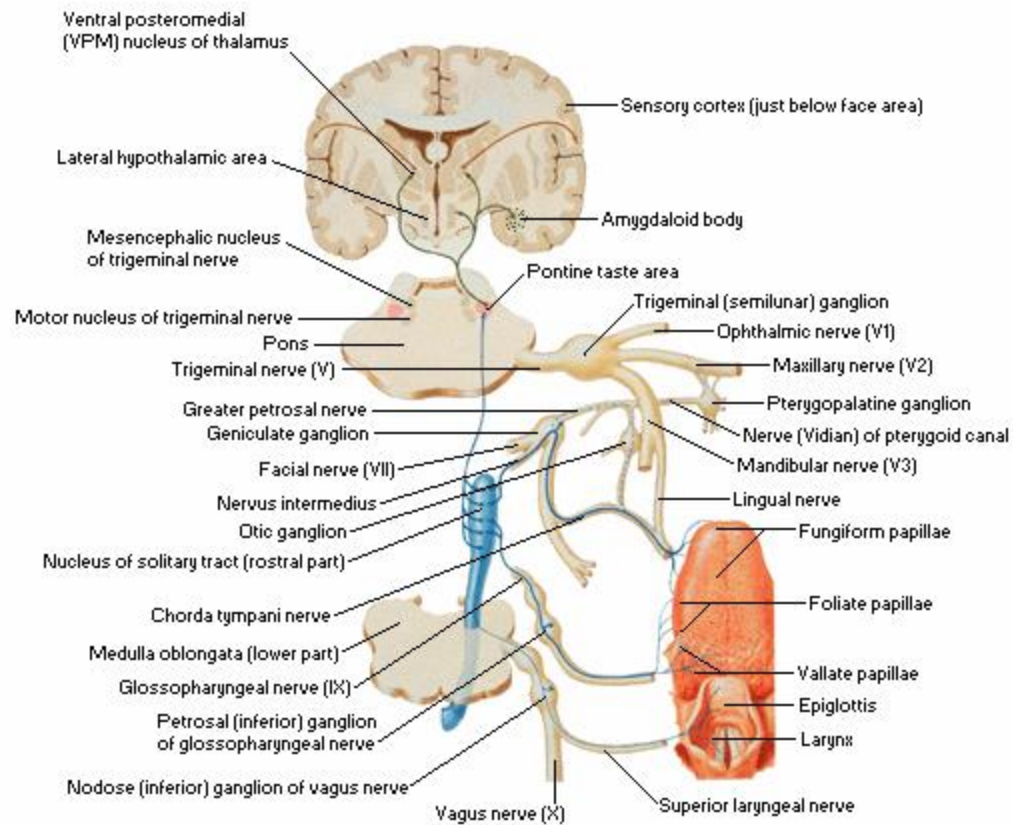
Schema

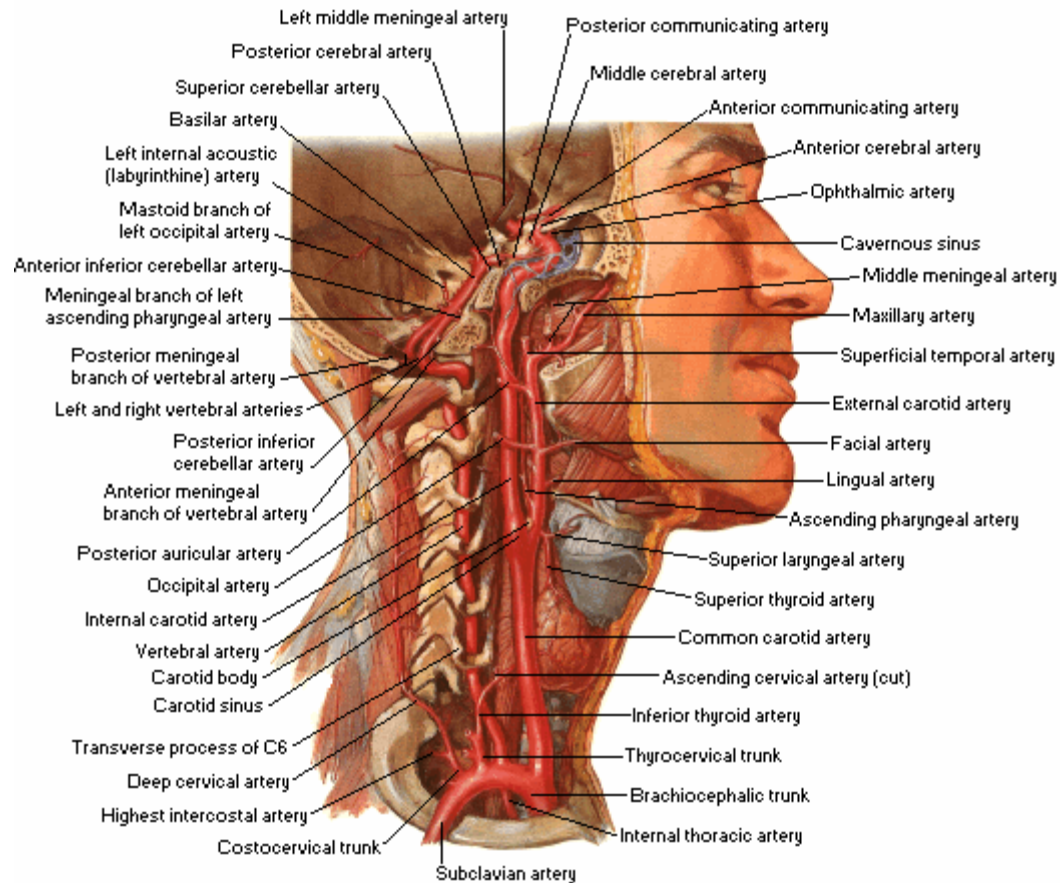




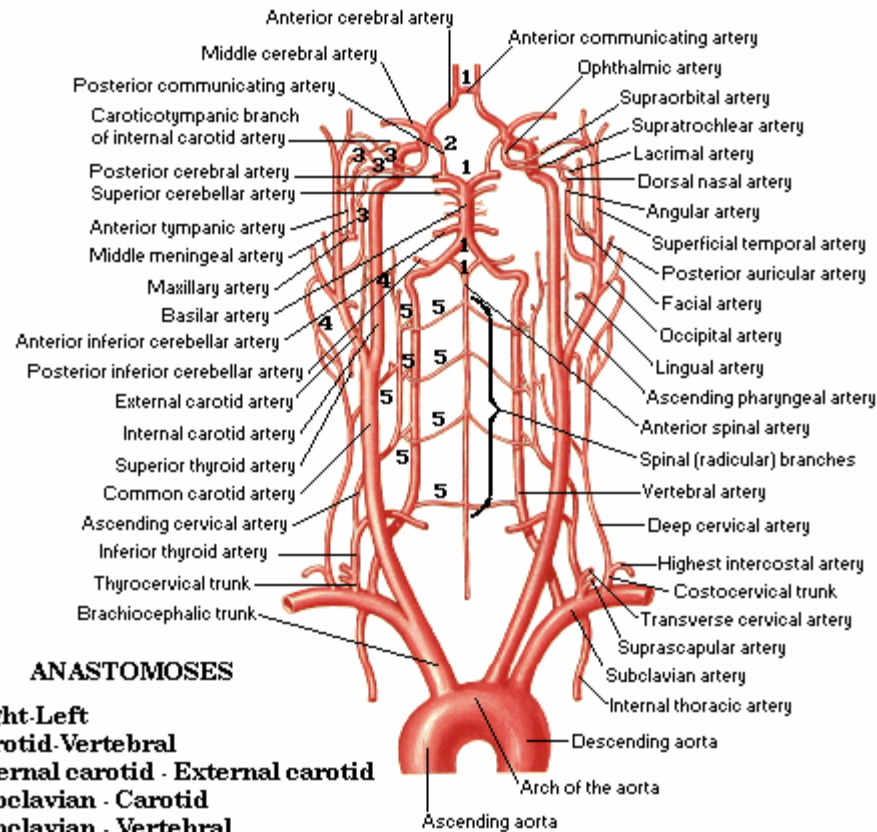
Schema

— Usual pathway
 - - - Accessory pathway

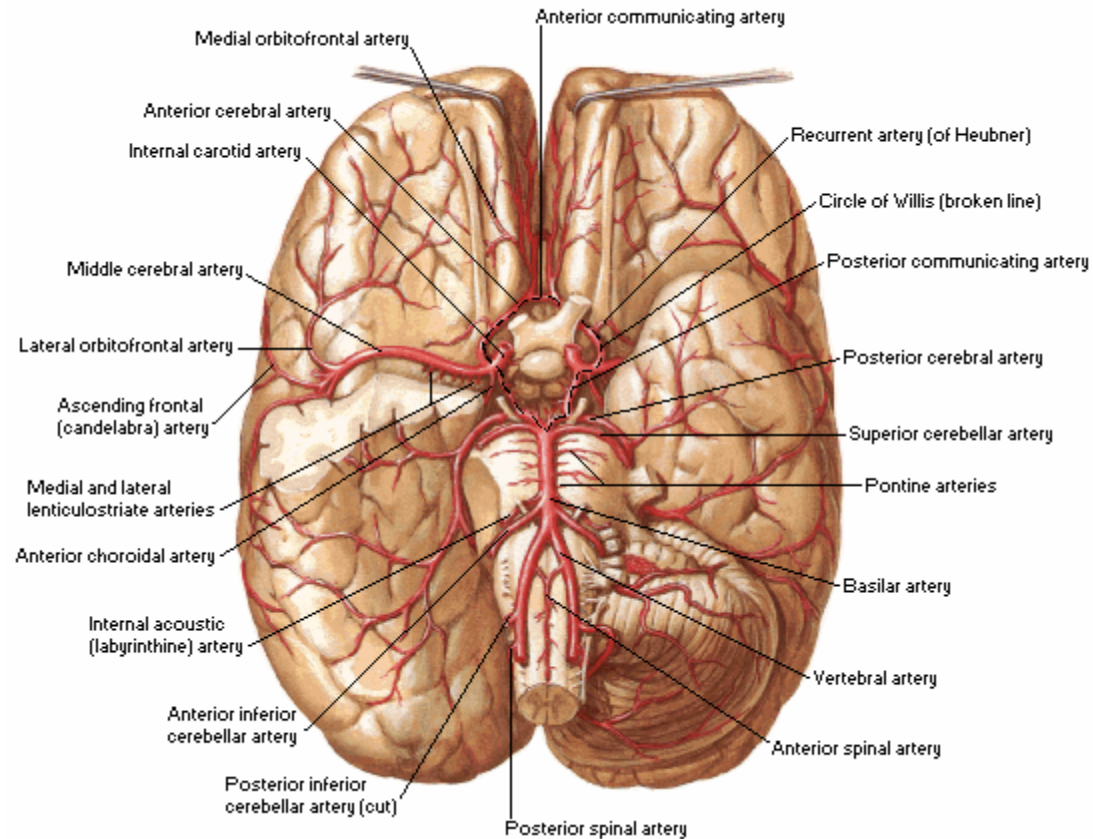




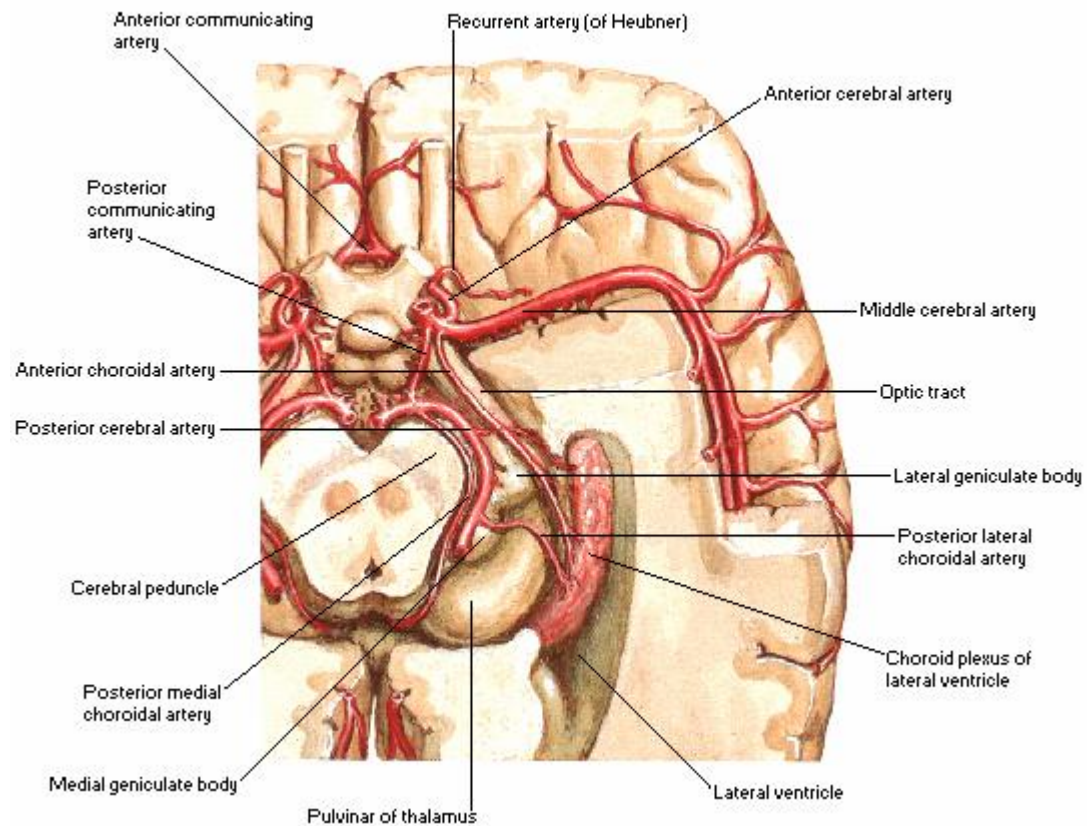
Schema



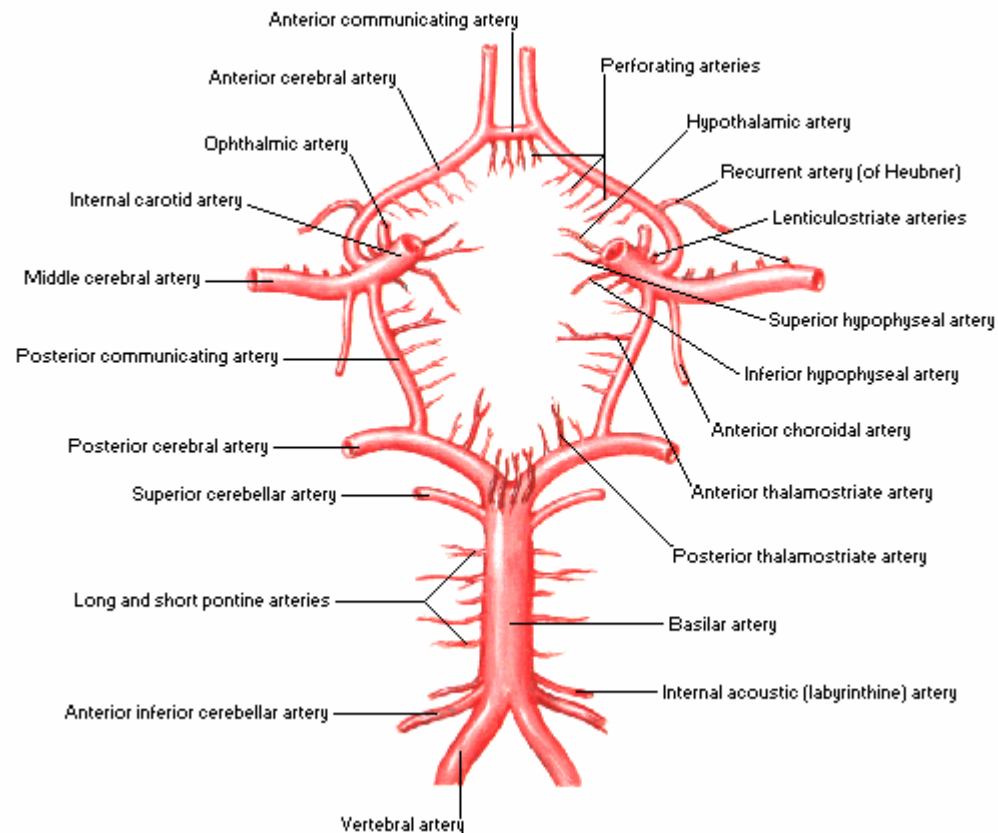
Inferior View



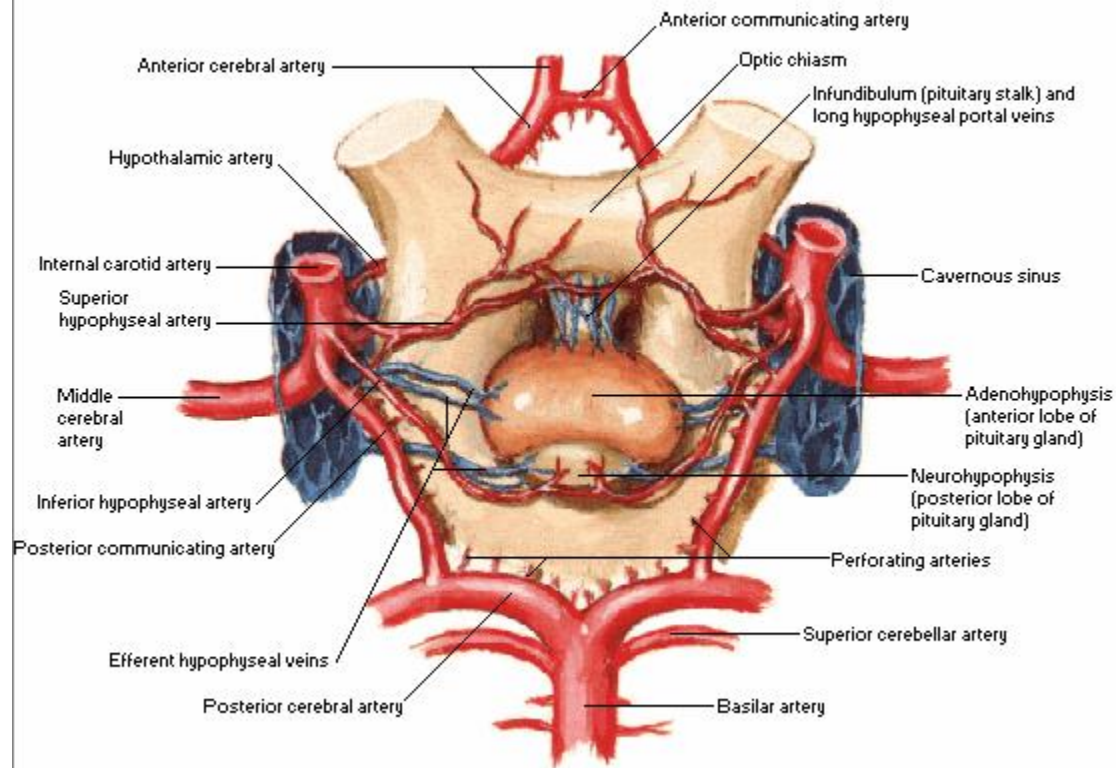
Inferior View



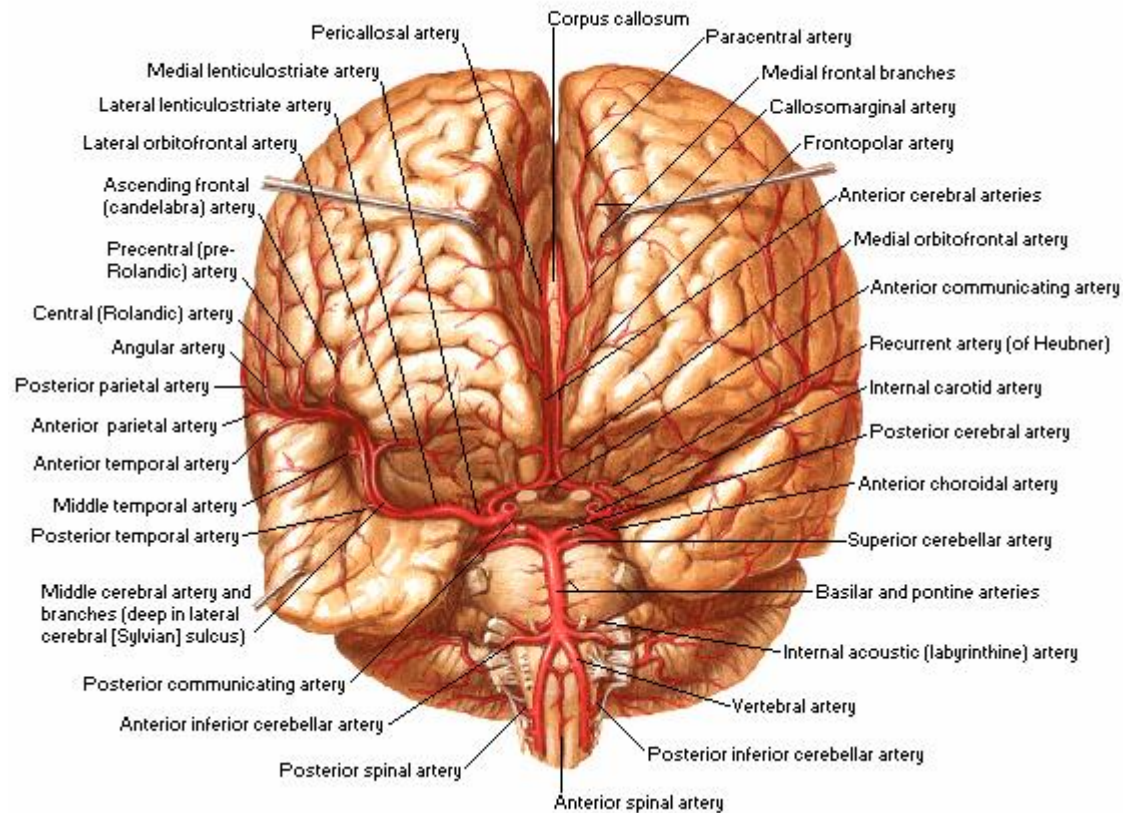
Inferior View

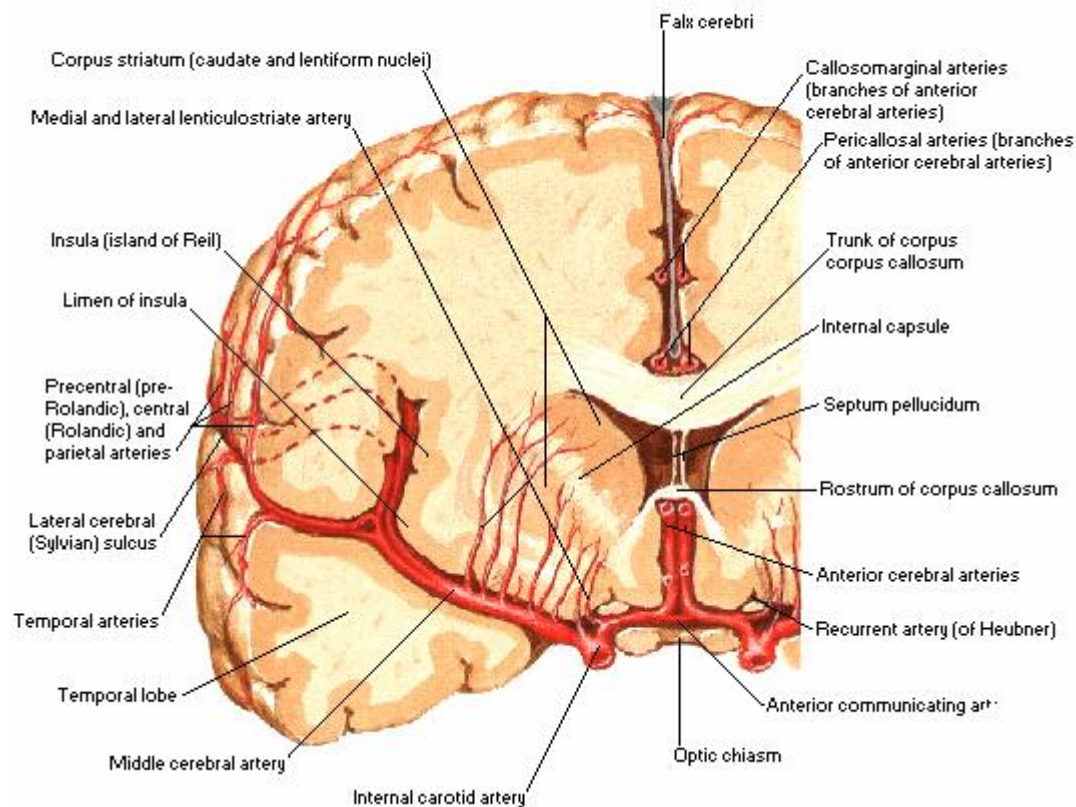


Inferior View

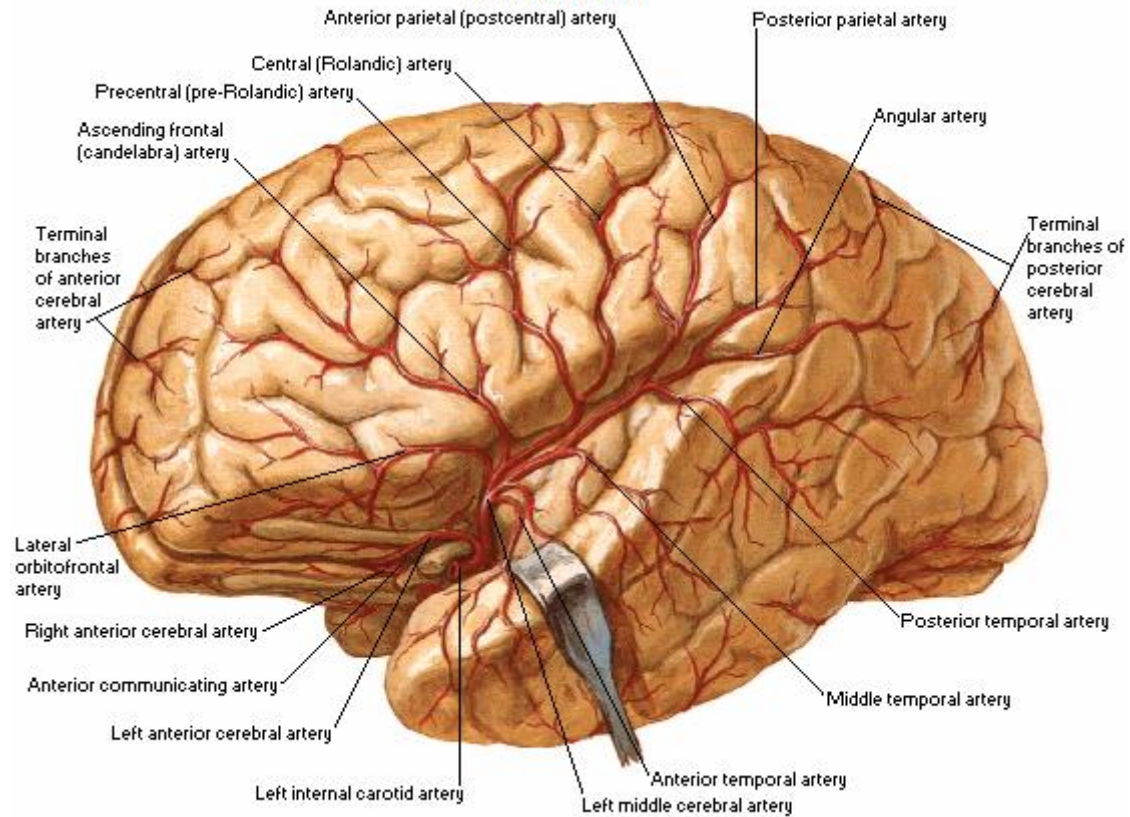


Frontal View

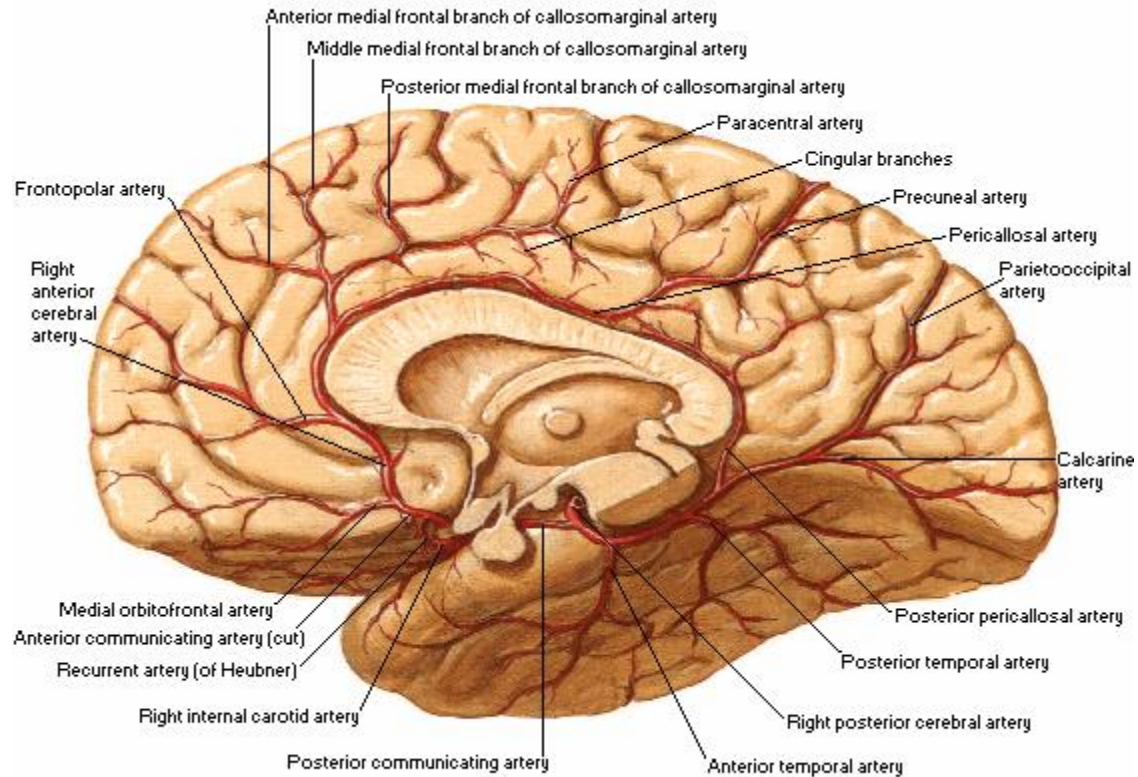


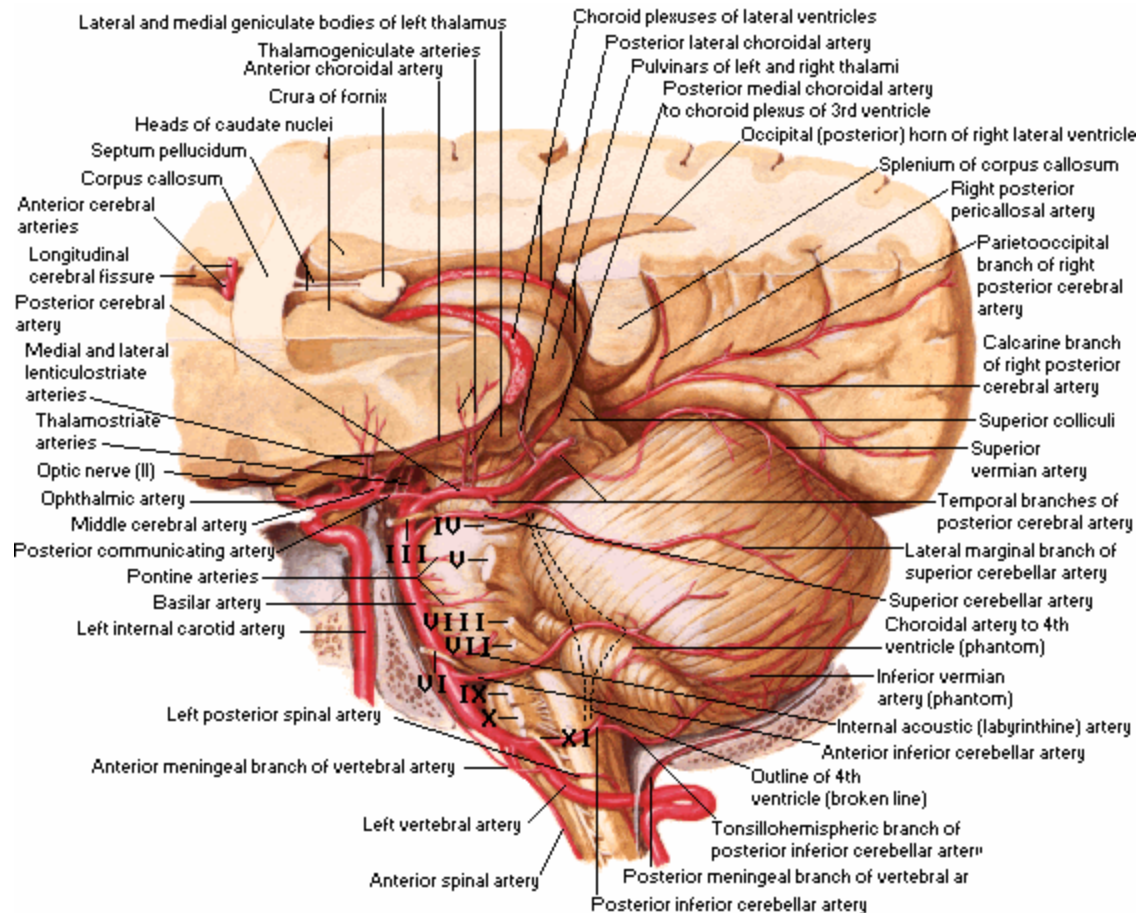


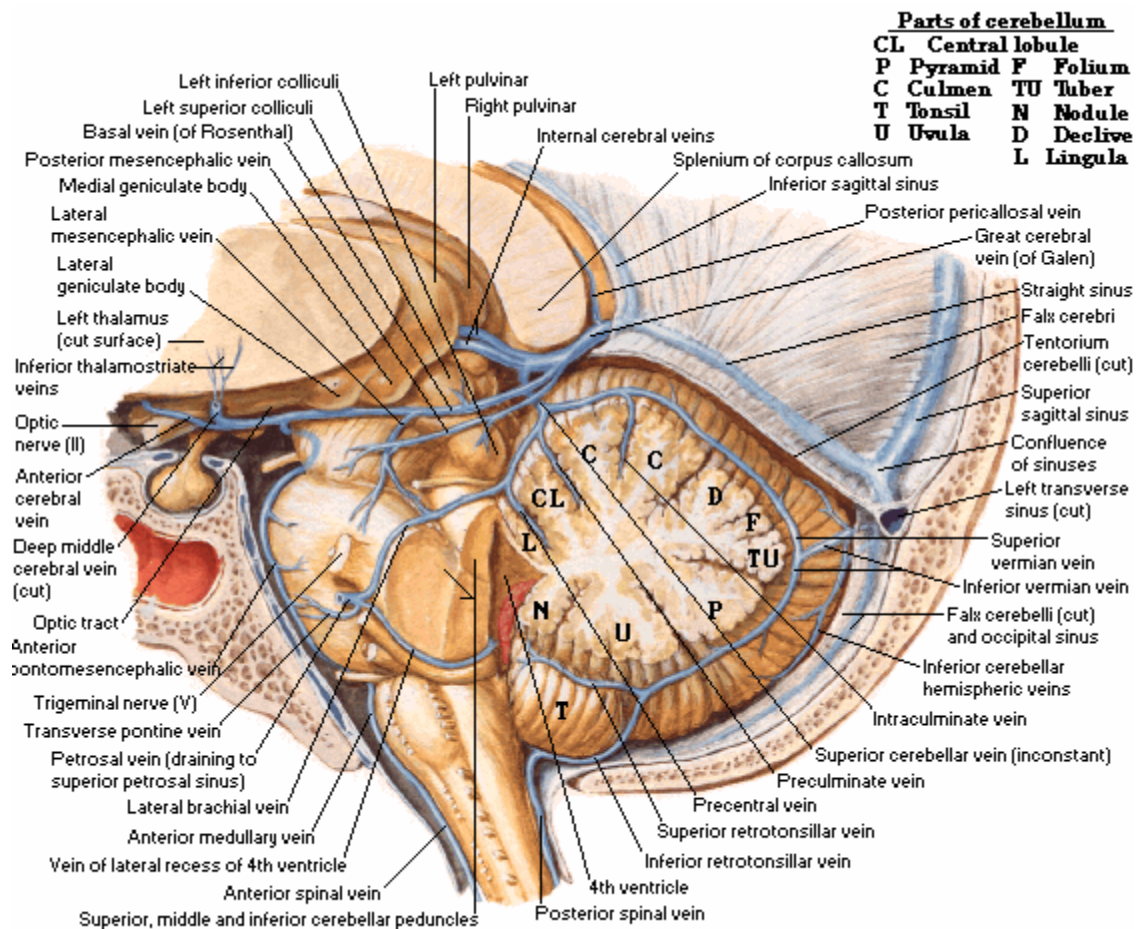
Lateral View



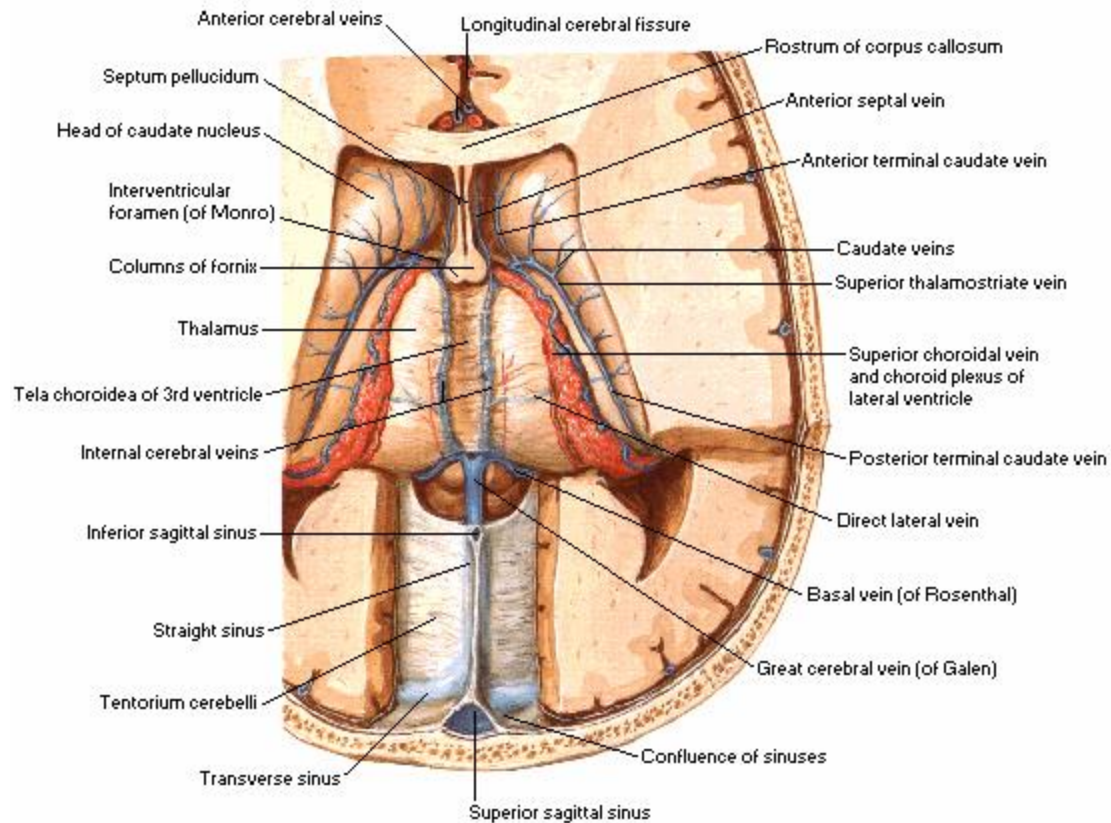
Medial View



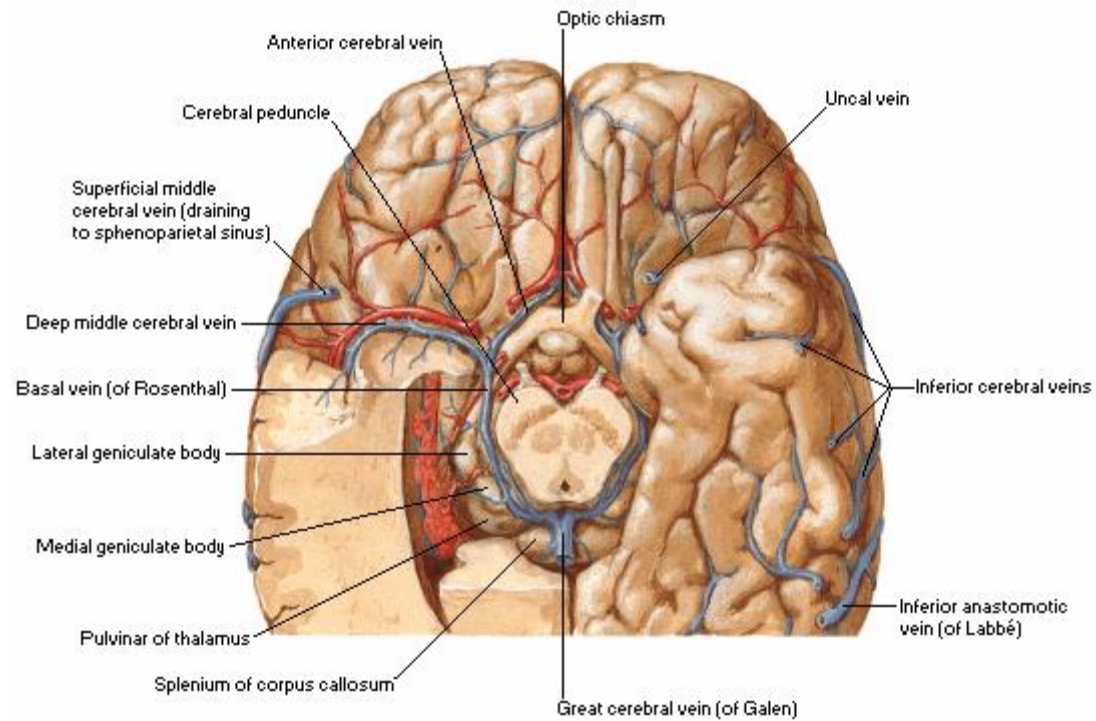


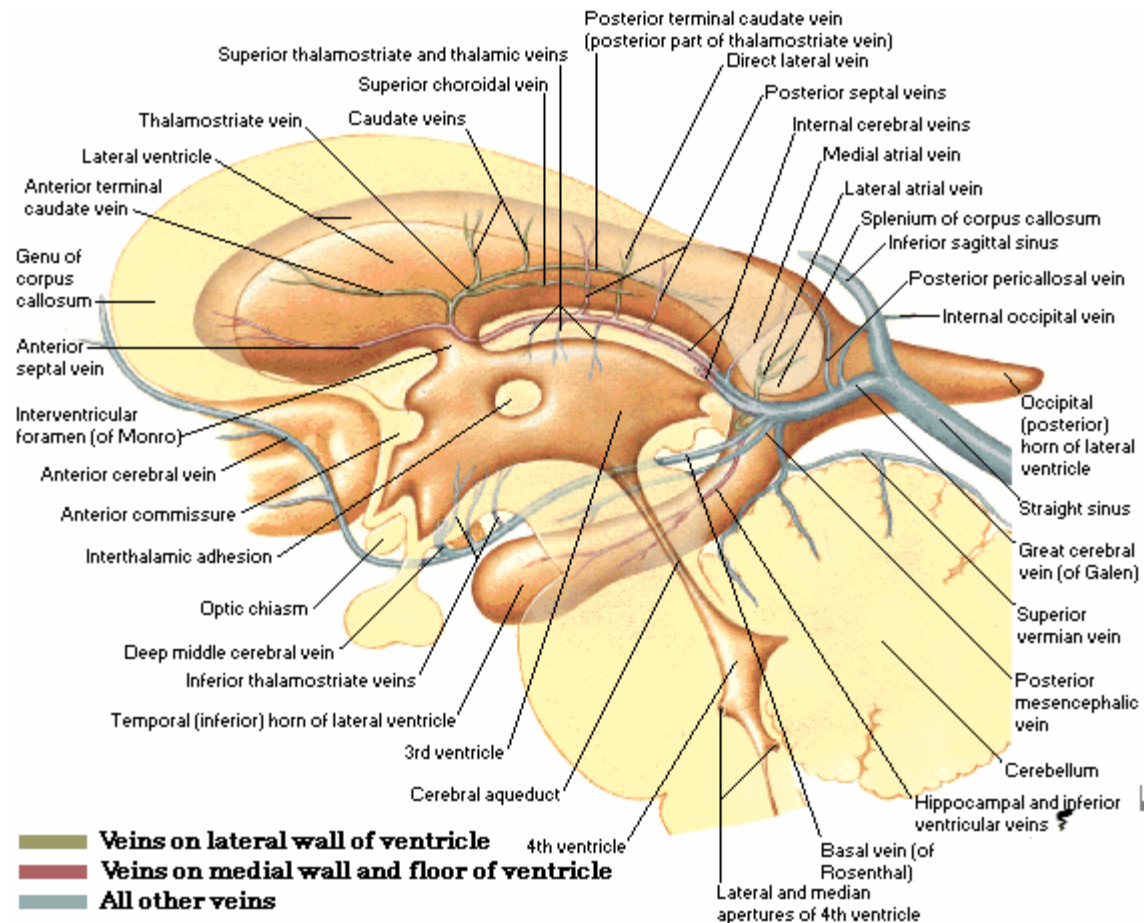


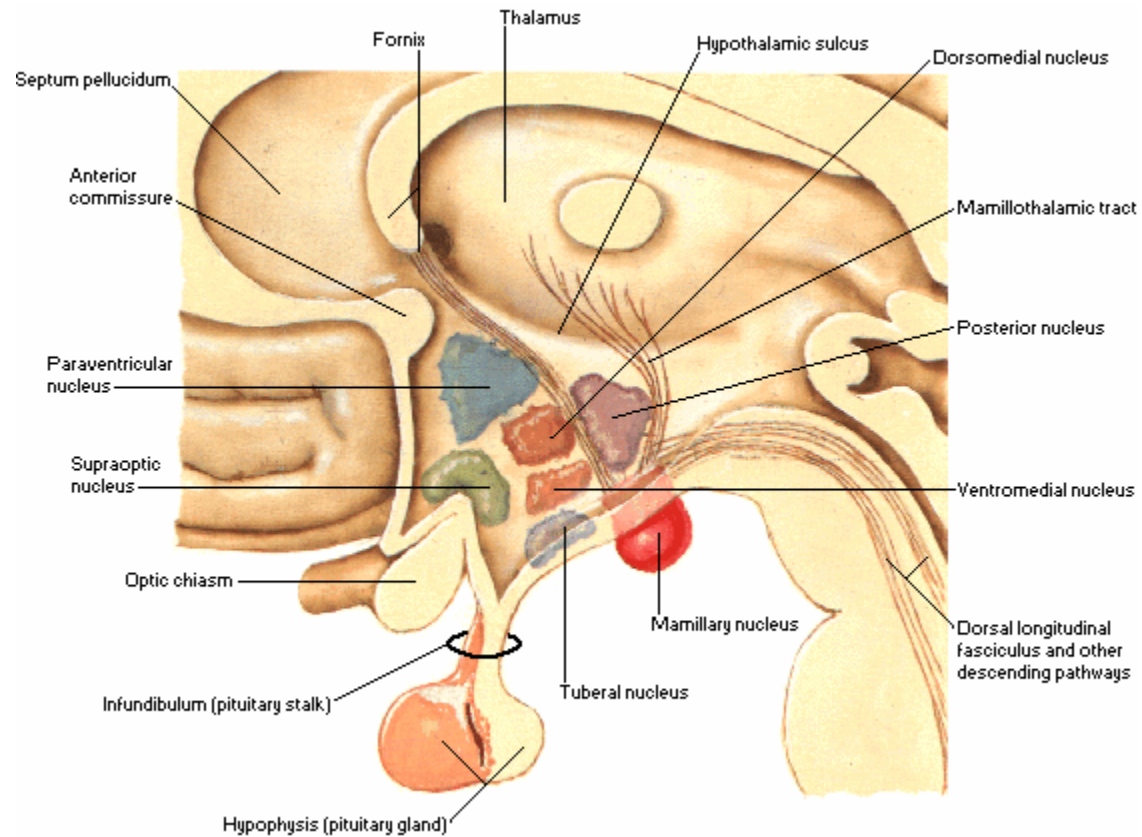
Superior View

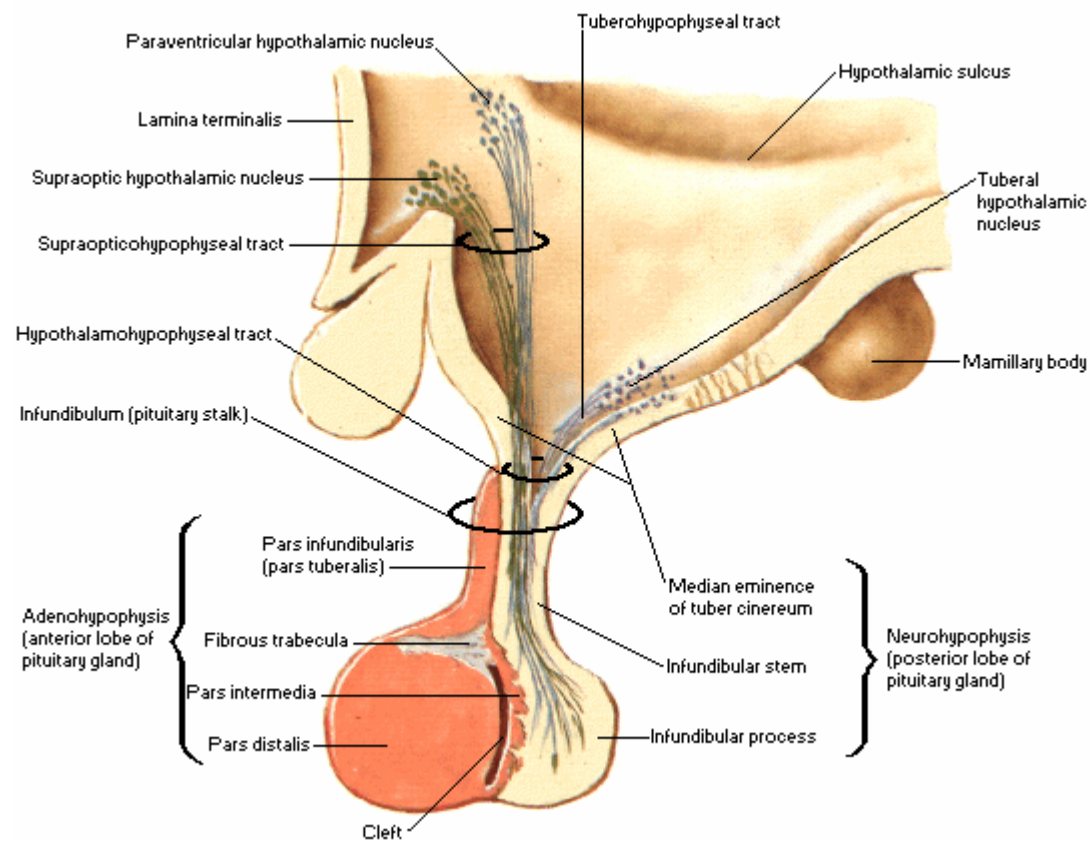


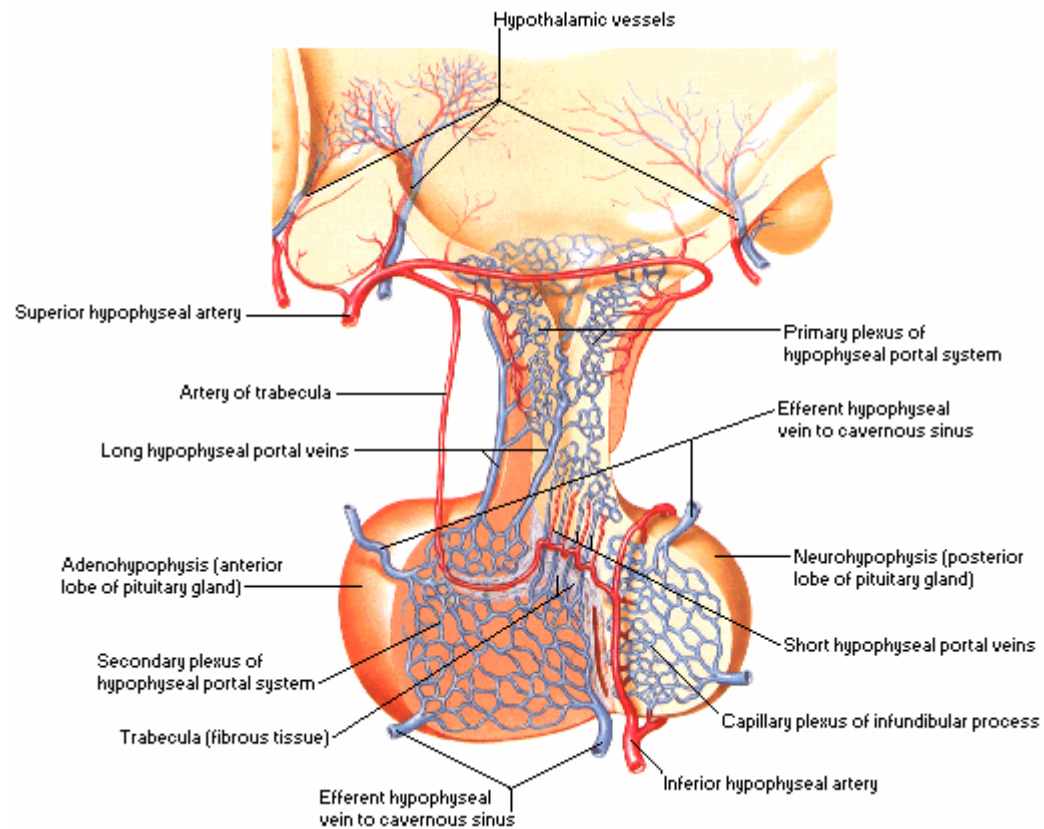
Inferior View

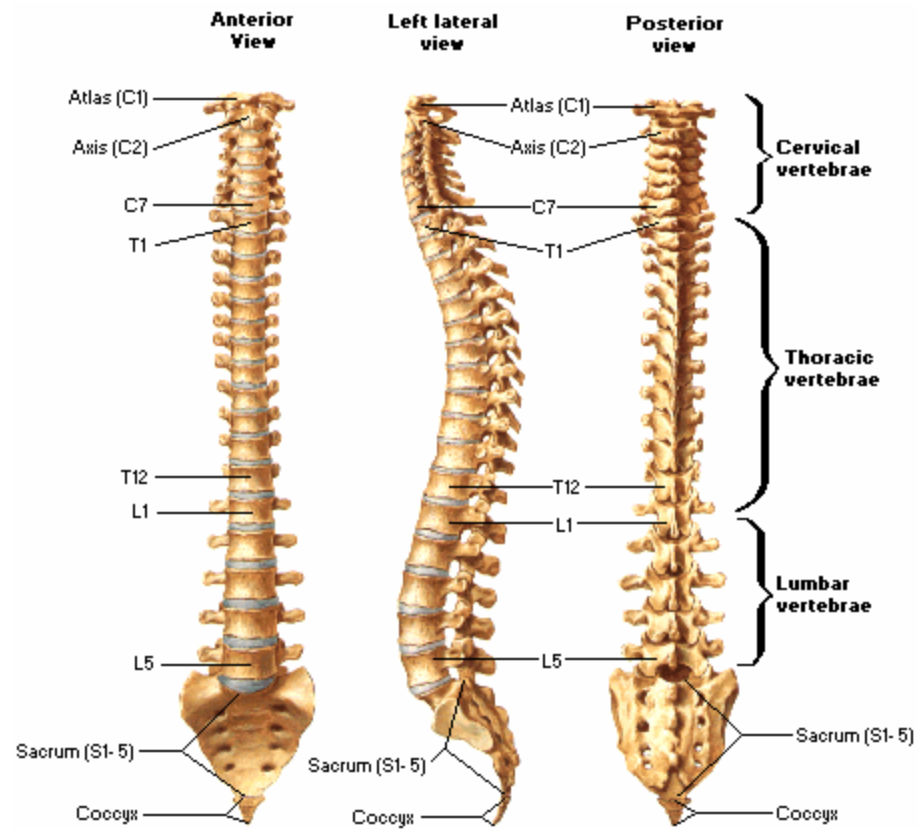




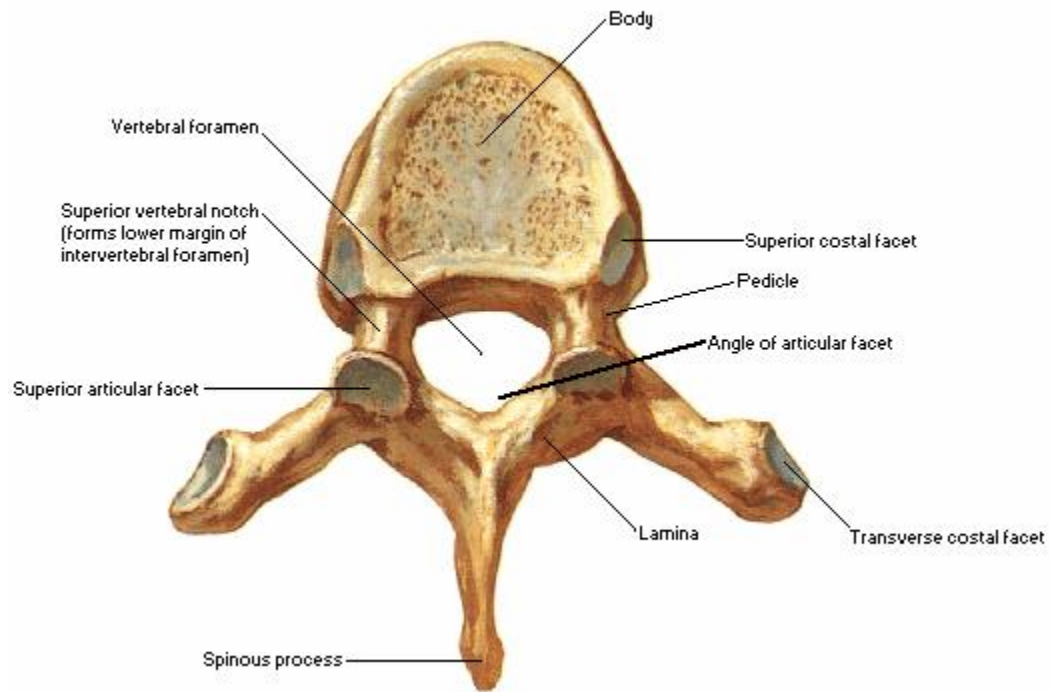




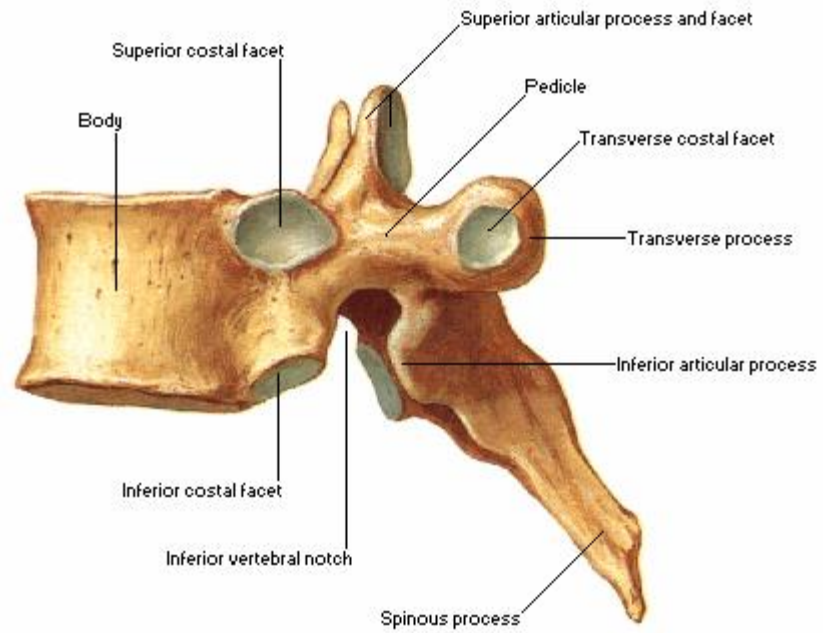




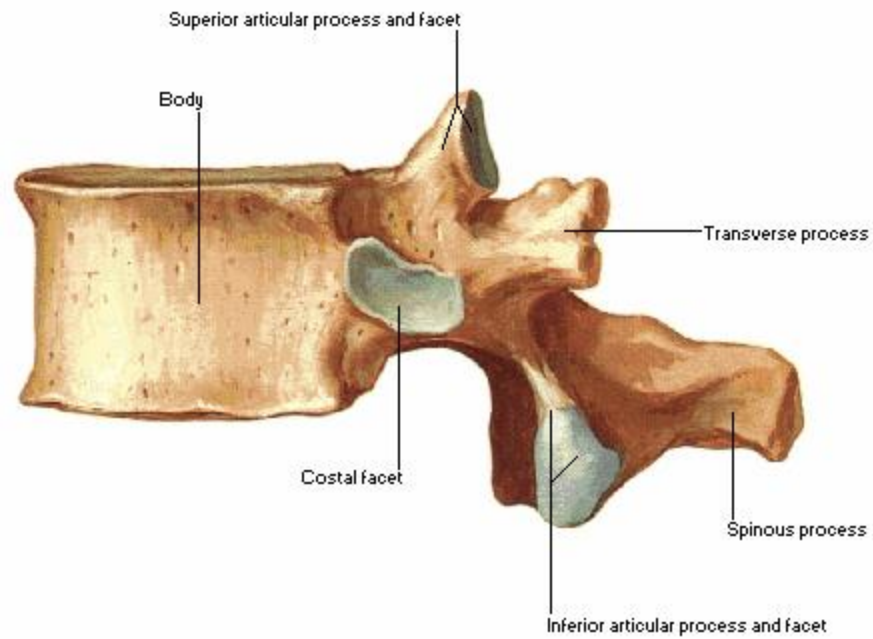
Superior View



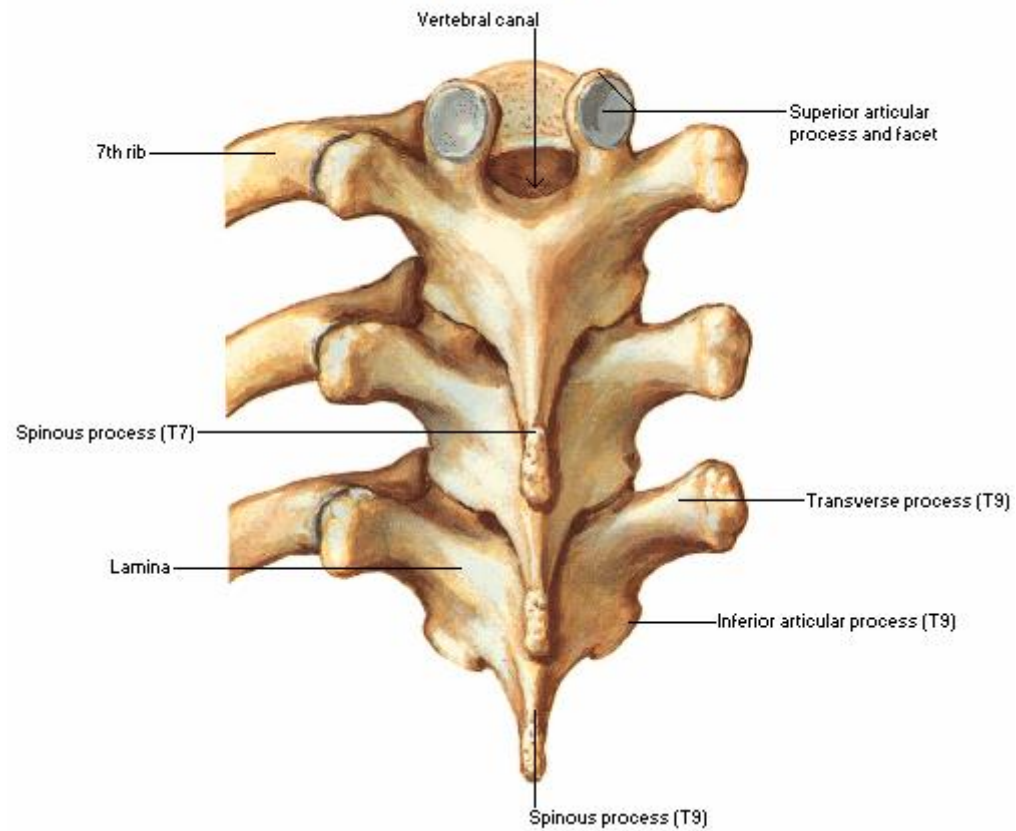
Lateral View



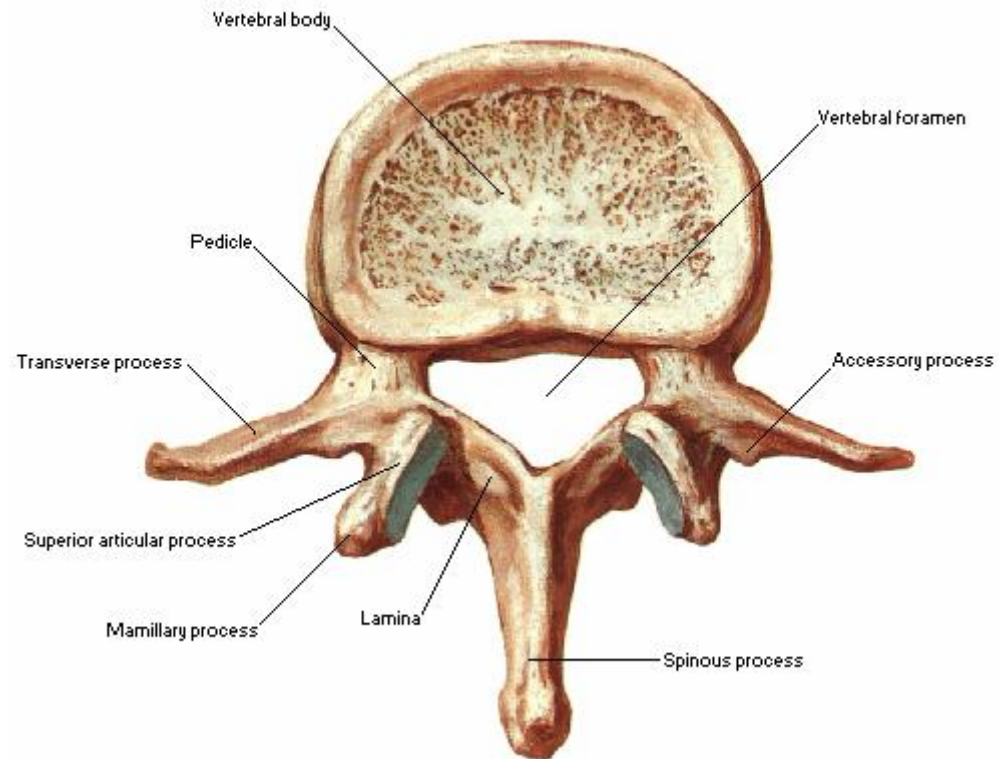
Lateral View



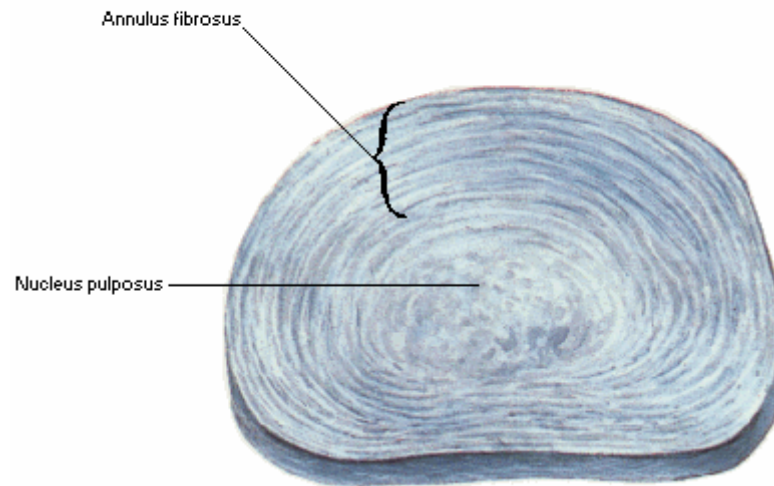
Posterior View



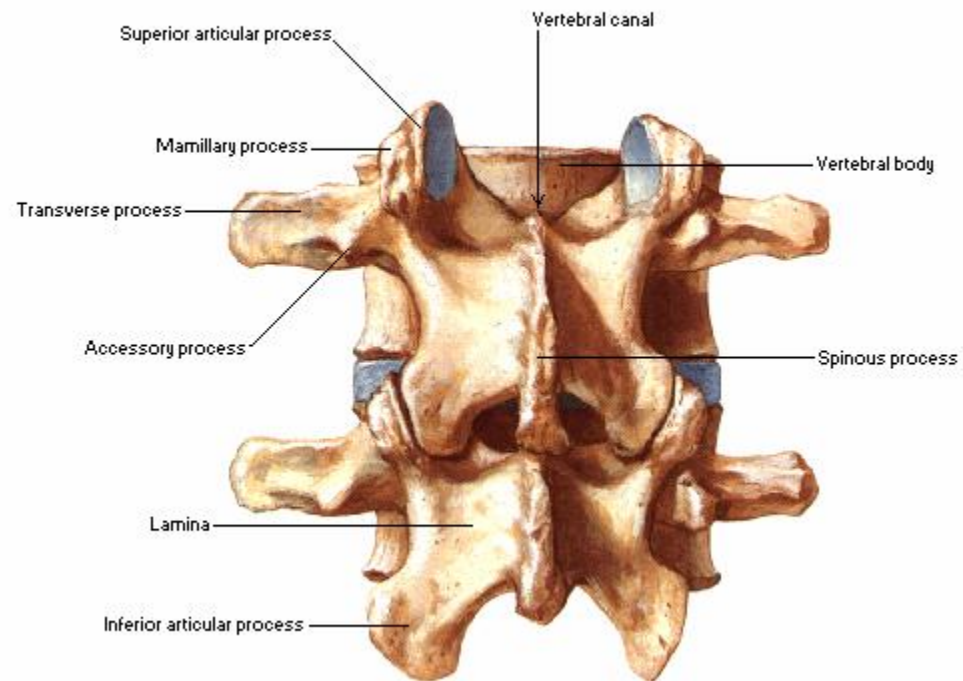
Superior View



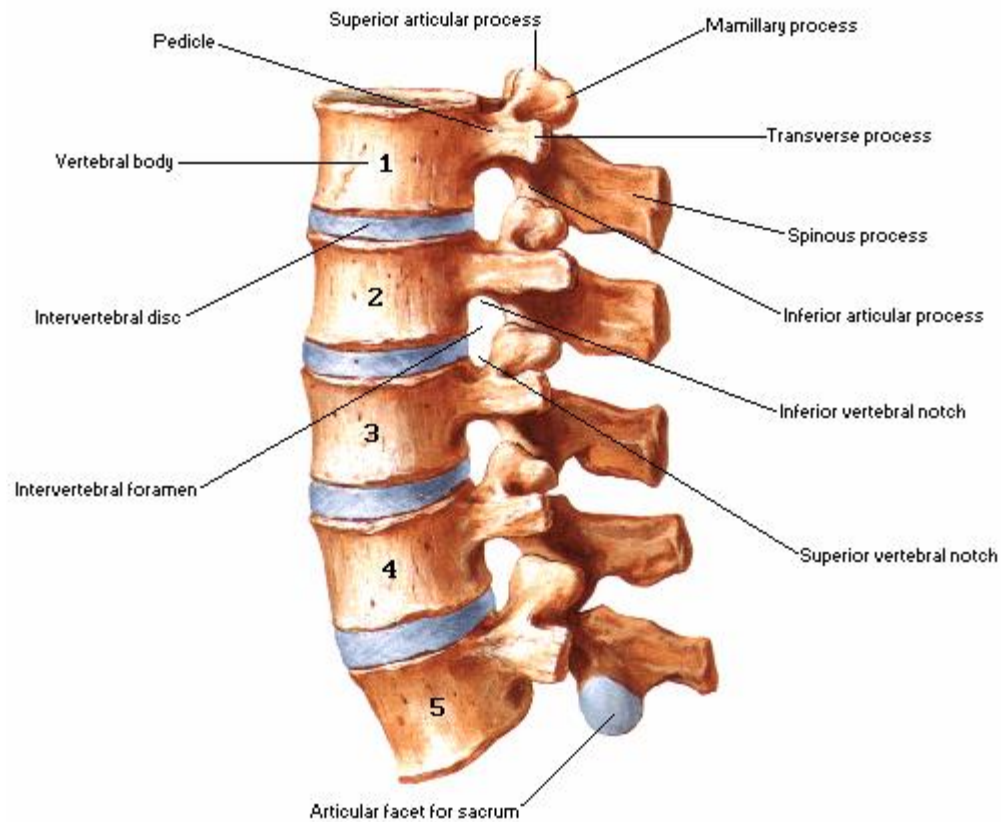
Intervertebral Disc

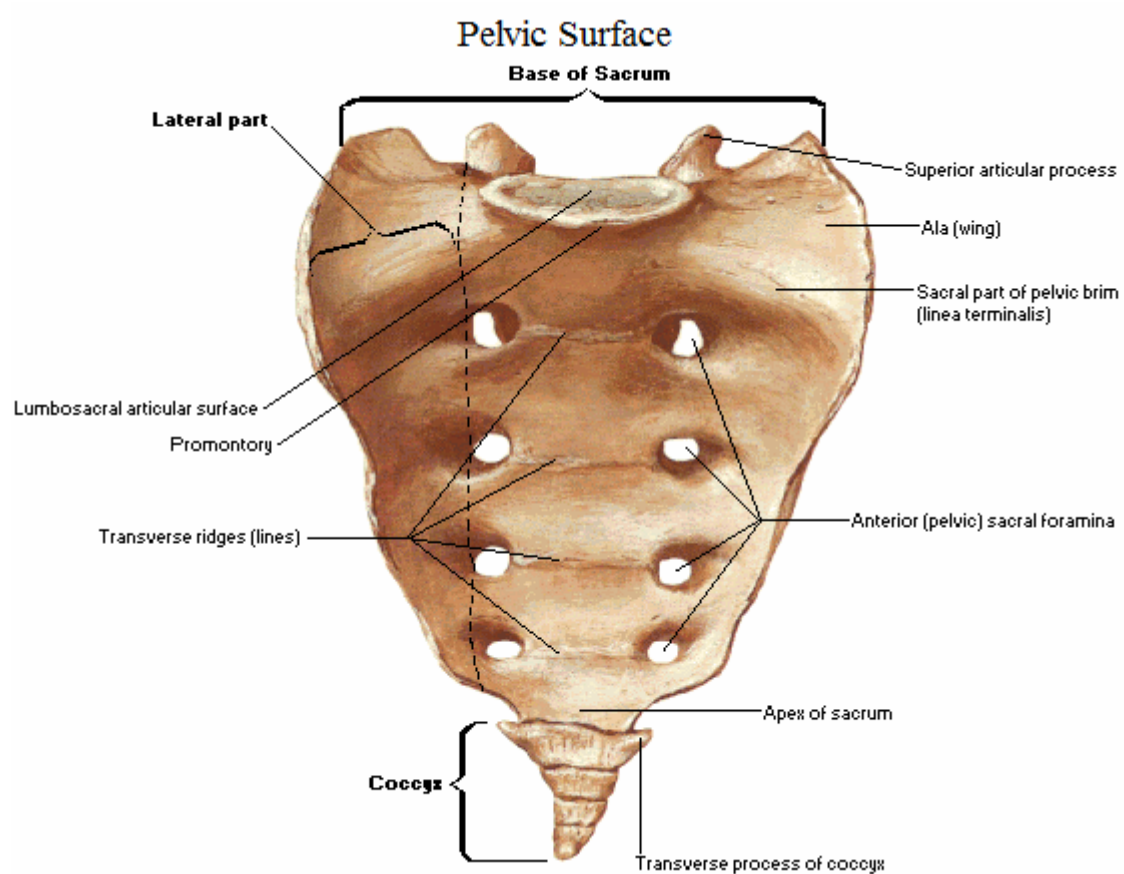


Posterior View

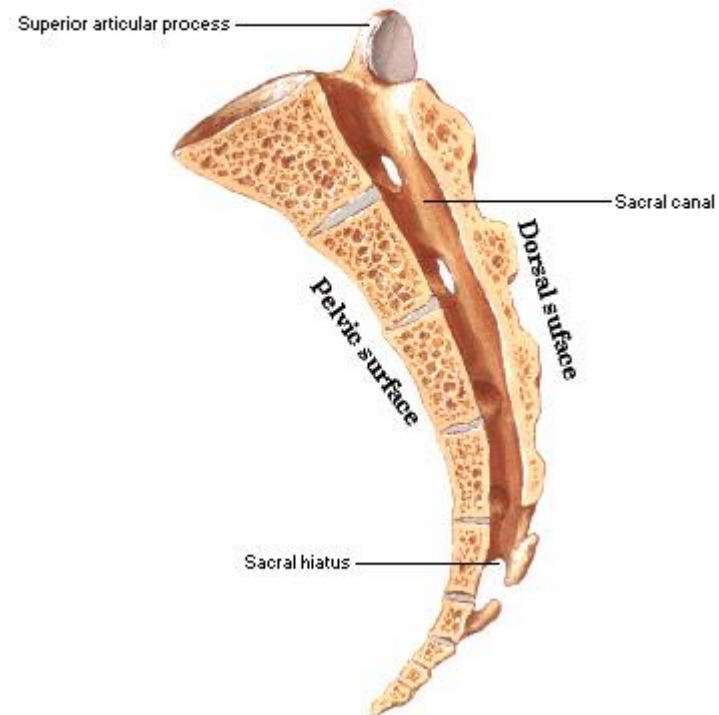


Left Lateral View

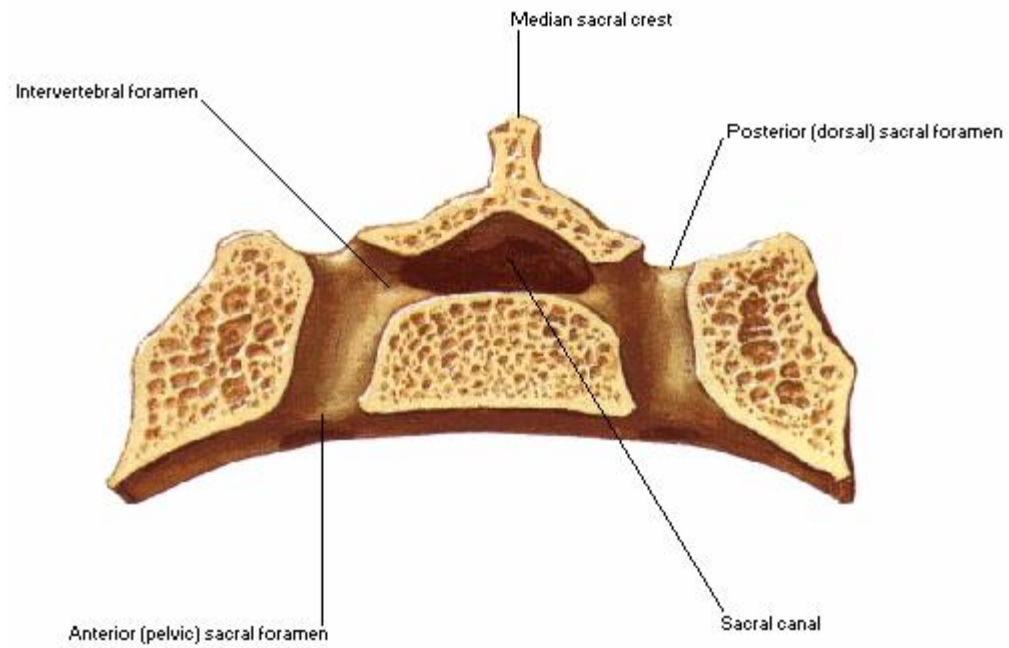




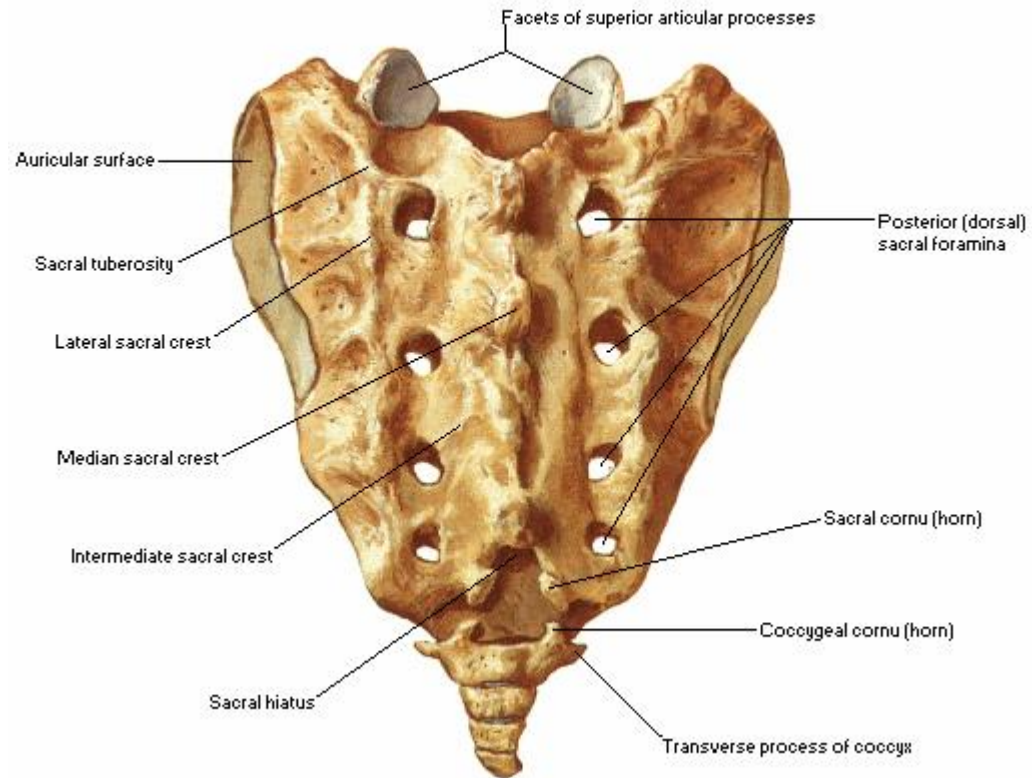
Median Sagittal Section



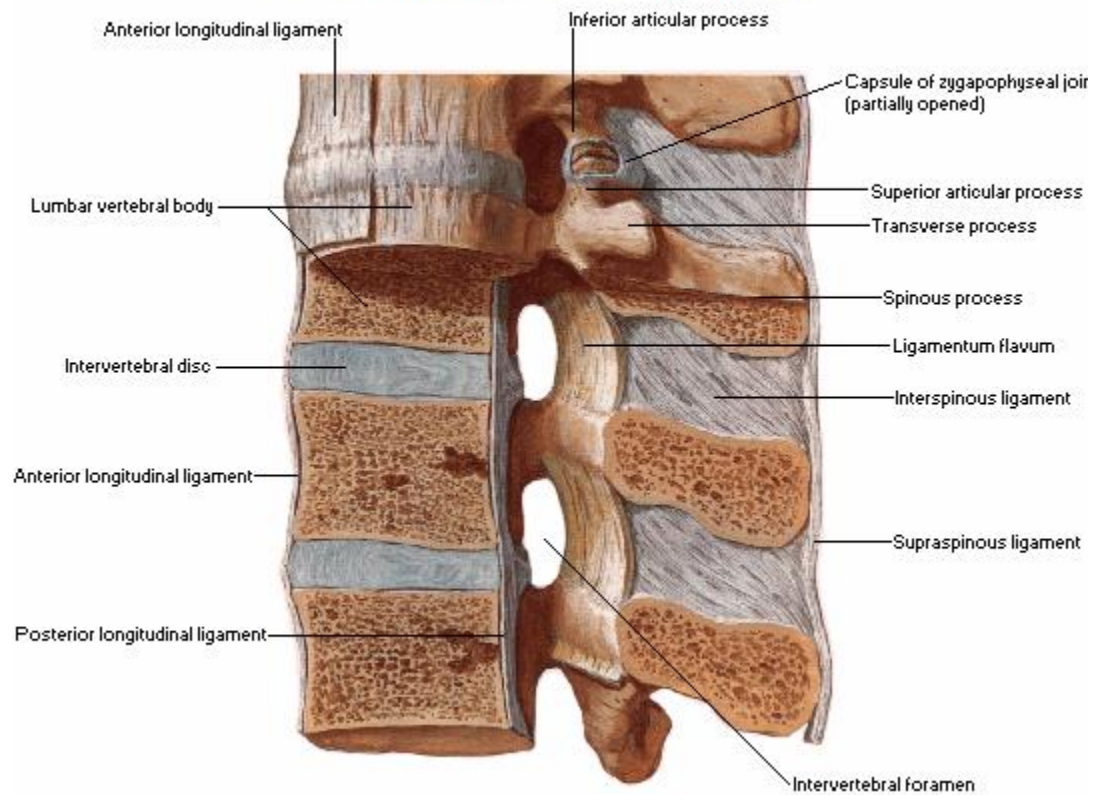
Transverse Section through S1 Foramina



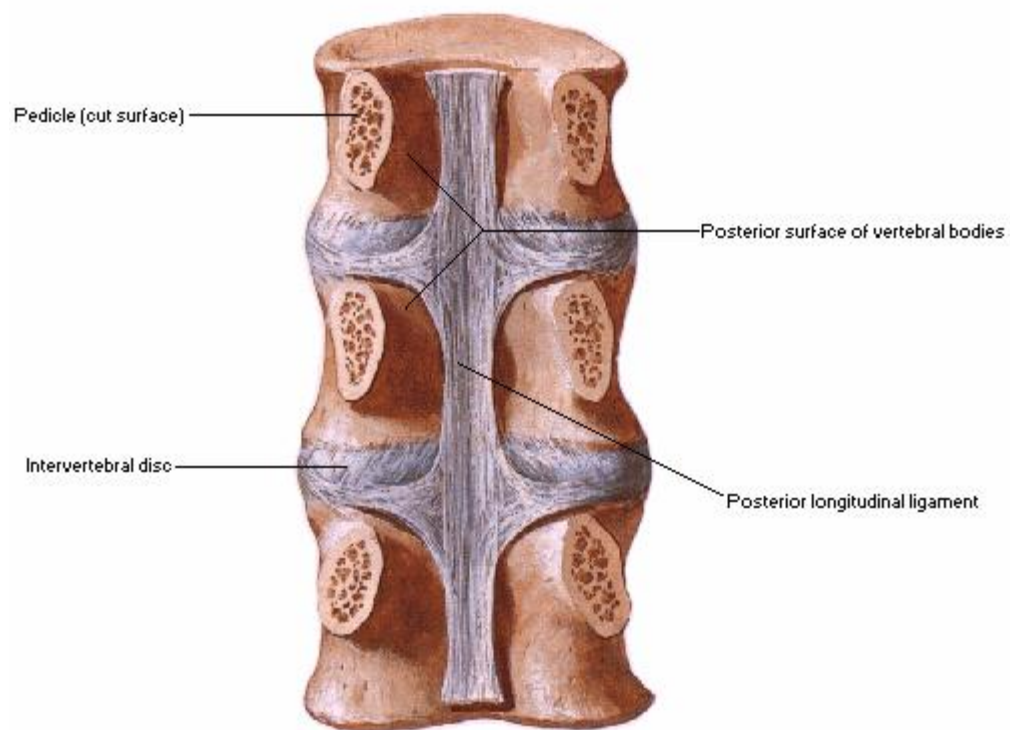
Dorsal Surface



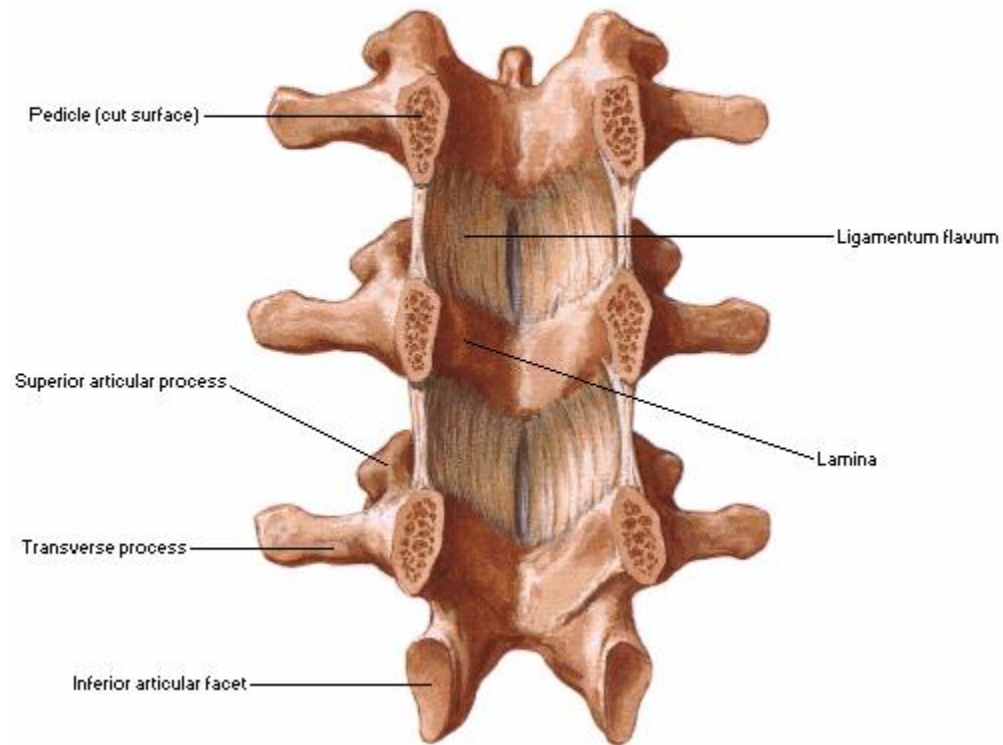
Left Lateral View - Partially Sectioned



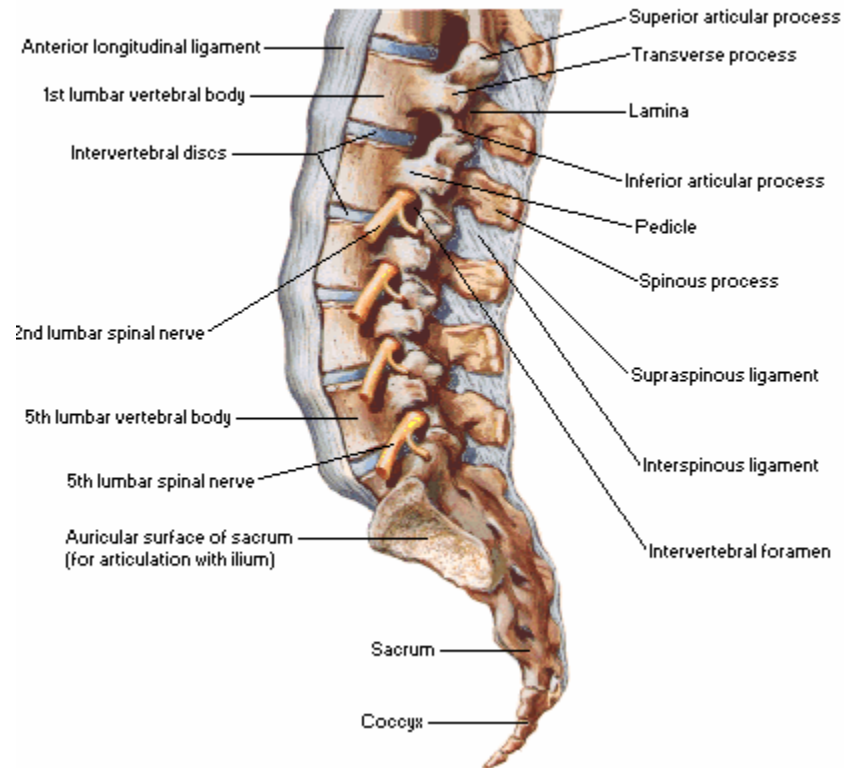
Anterior Vertebral Segments - Posterior View



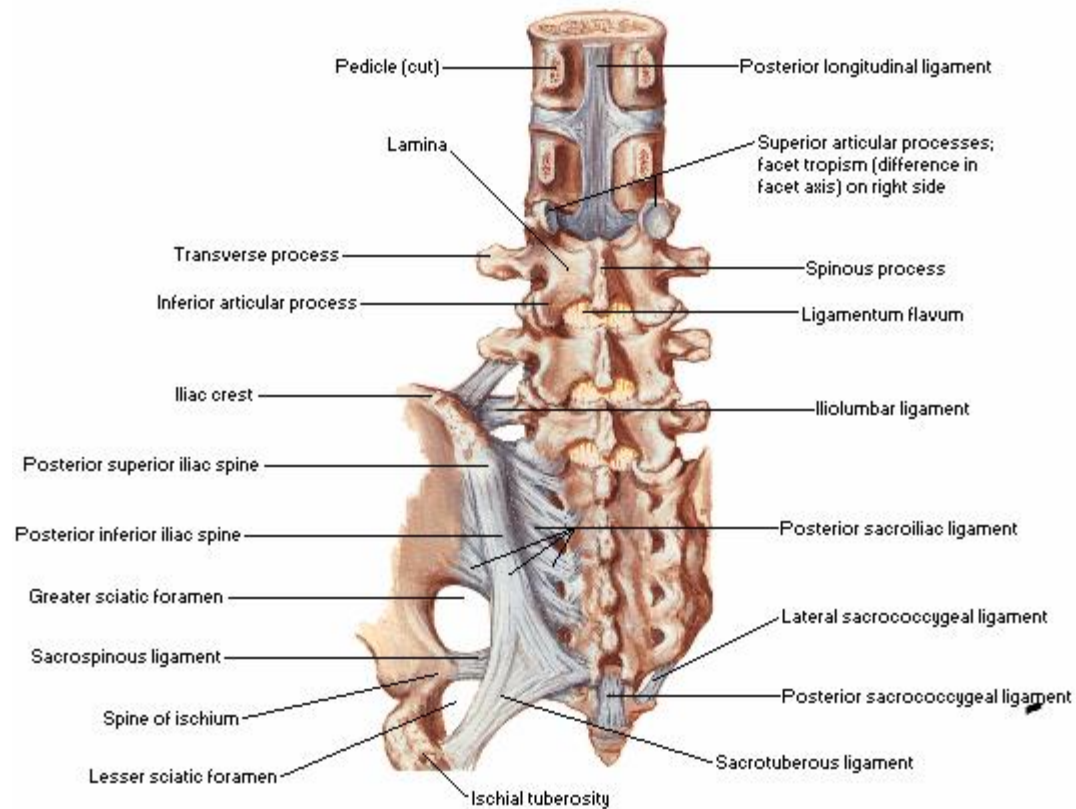
Posterior Vertebral Segments - Anterior View

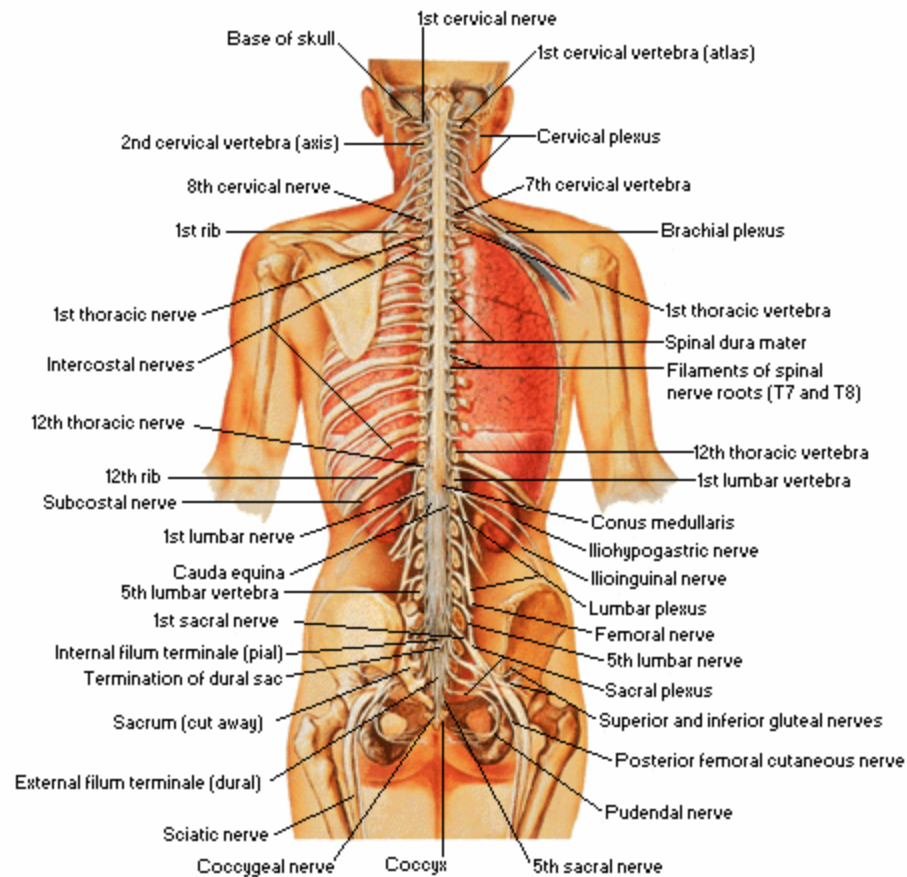


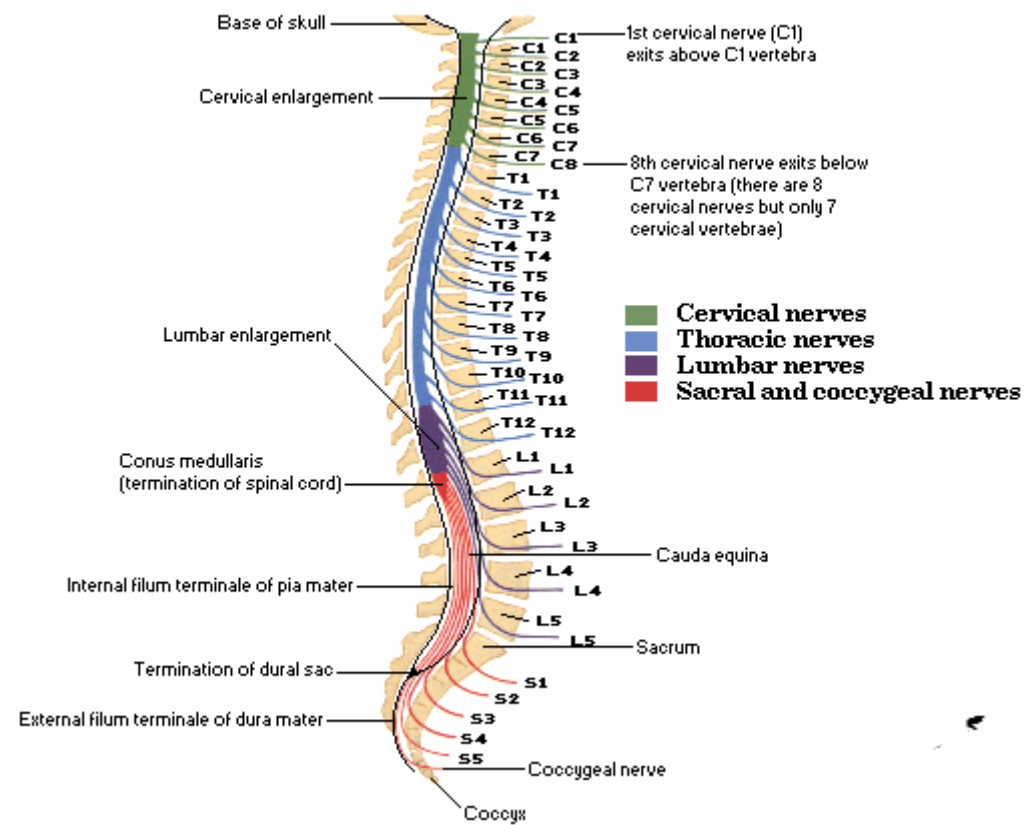
Left Lateral View



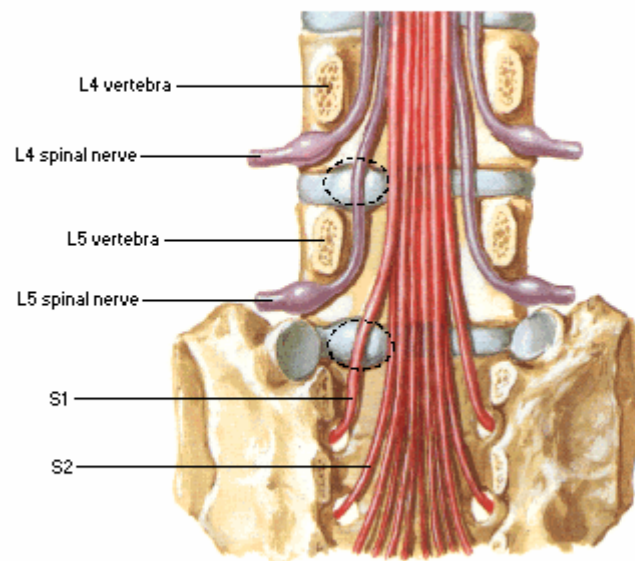
Posterior View





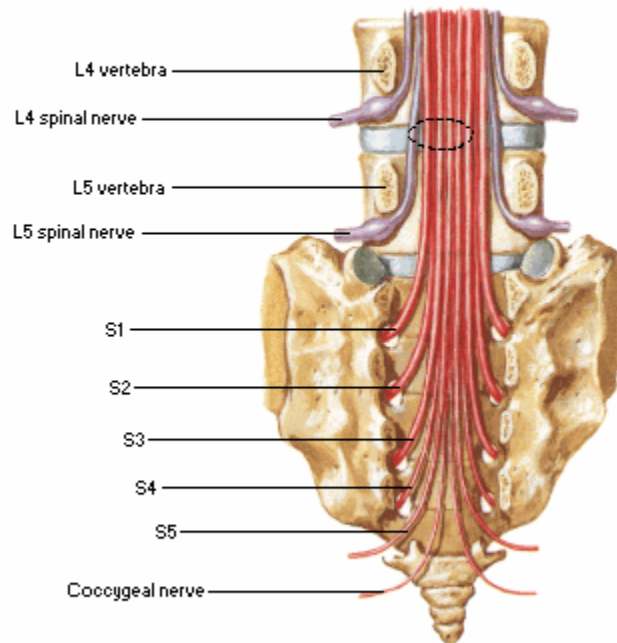


Lateral Protrusion



Lumbar disc protrusion does not usually affect nerve exiting above disc. Lateral protrusion at disc level L4- 5 affects 5th lumbar nerve, not 4th lumbar nerve. Protrusion at disc level L5- S1 affects 1st sacral nerve, not 5th lumbar nerve

Medial Protrusion



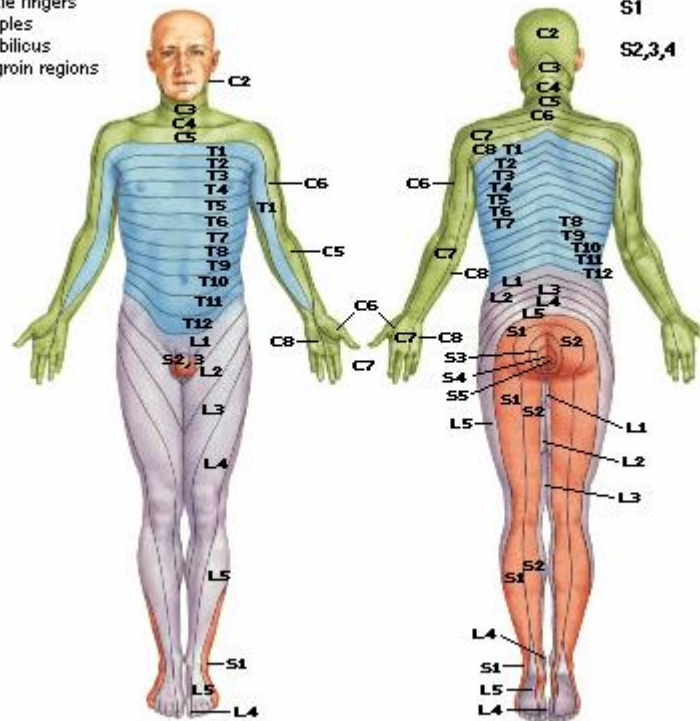
Medial protrusion at disc level L4-5 rarely affects 4th lumbar nerve but may affect 5th lumbar nerve and sometimes 1st-4th sacral nerves

Levels of principal dermatomes

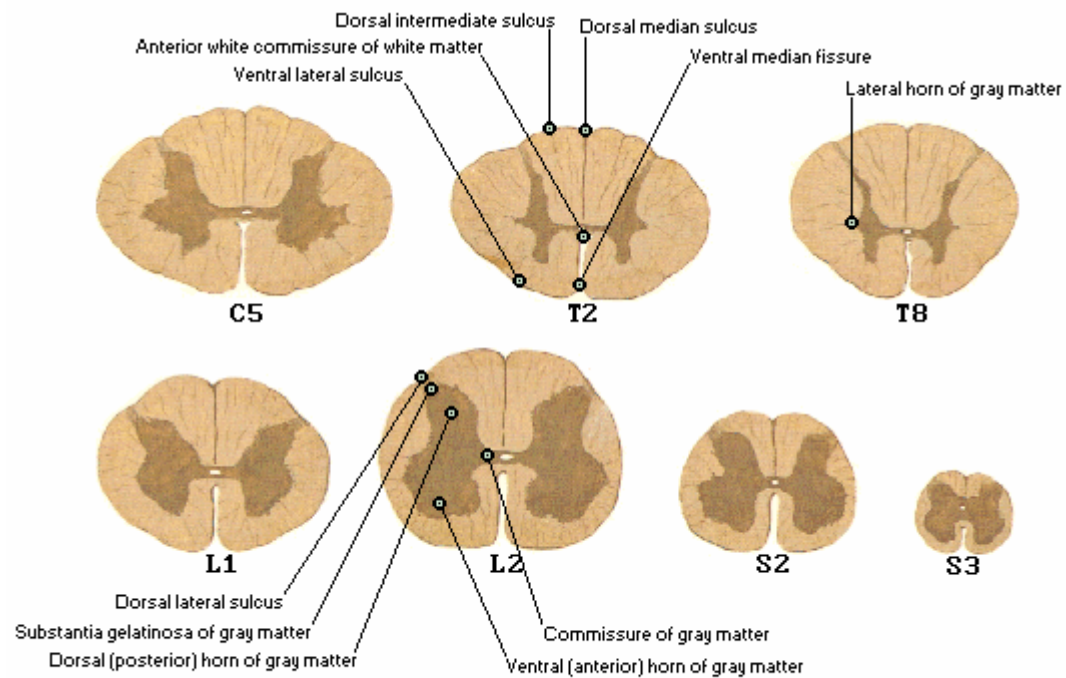
C5	Clavicles
C5,6,7	Lateral parts of upper limbs
C8,T1	Medial sides of upper limbs
C6	Thumb
C6,7,8	Hand
C8	Ring and little fingers
T4	Level of nipples
T10	Level of umbilicus
T12	Inguinal or groin regions

Levels of principal dermatomes

L1,2,3,4	Anterior and inner surfaces of lower limbs
L4,5,S1	Foot
L4	Medial side of great toe
S1,2,L5	Posterior and outer surfaces of lower limbs
S1	Lateral margin of foot and little toe
S2,3,4	Perineum

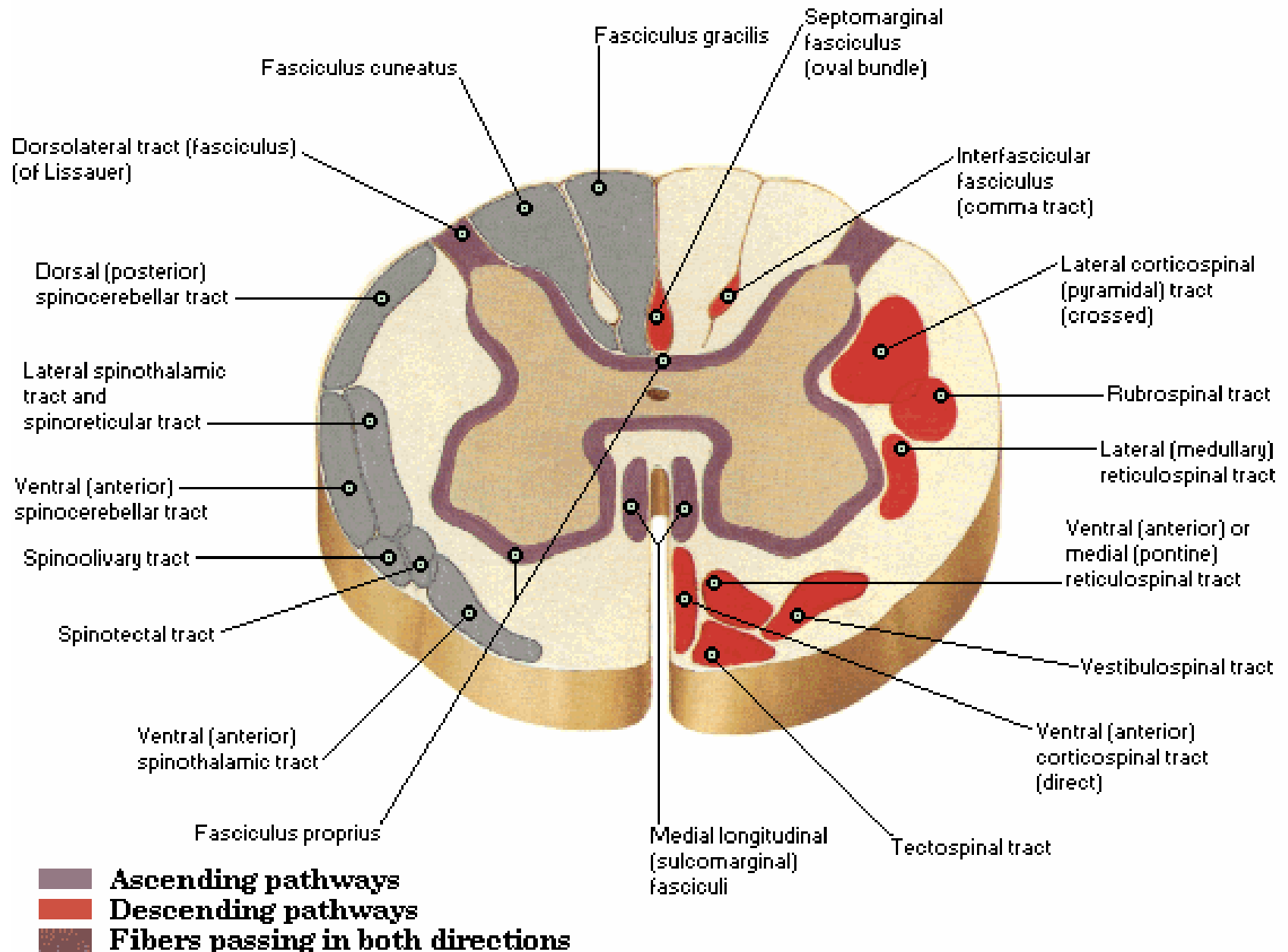


Schematic demarcation of dermatomes shown as distinct segments. There is actually considerable overlap between any two adjacent dermatomes

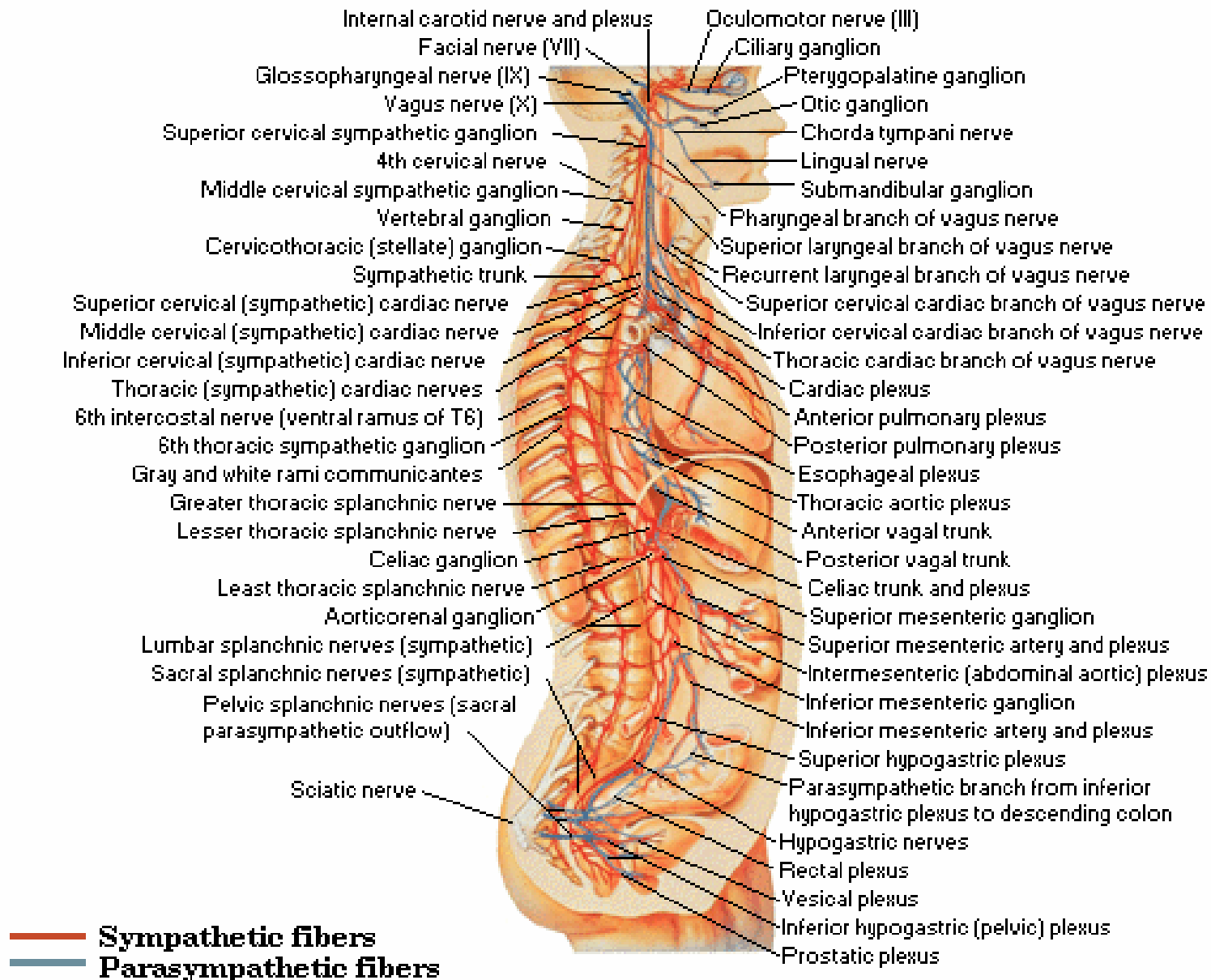


Sections through spinal cord at various levels

Fiber Tracts

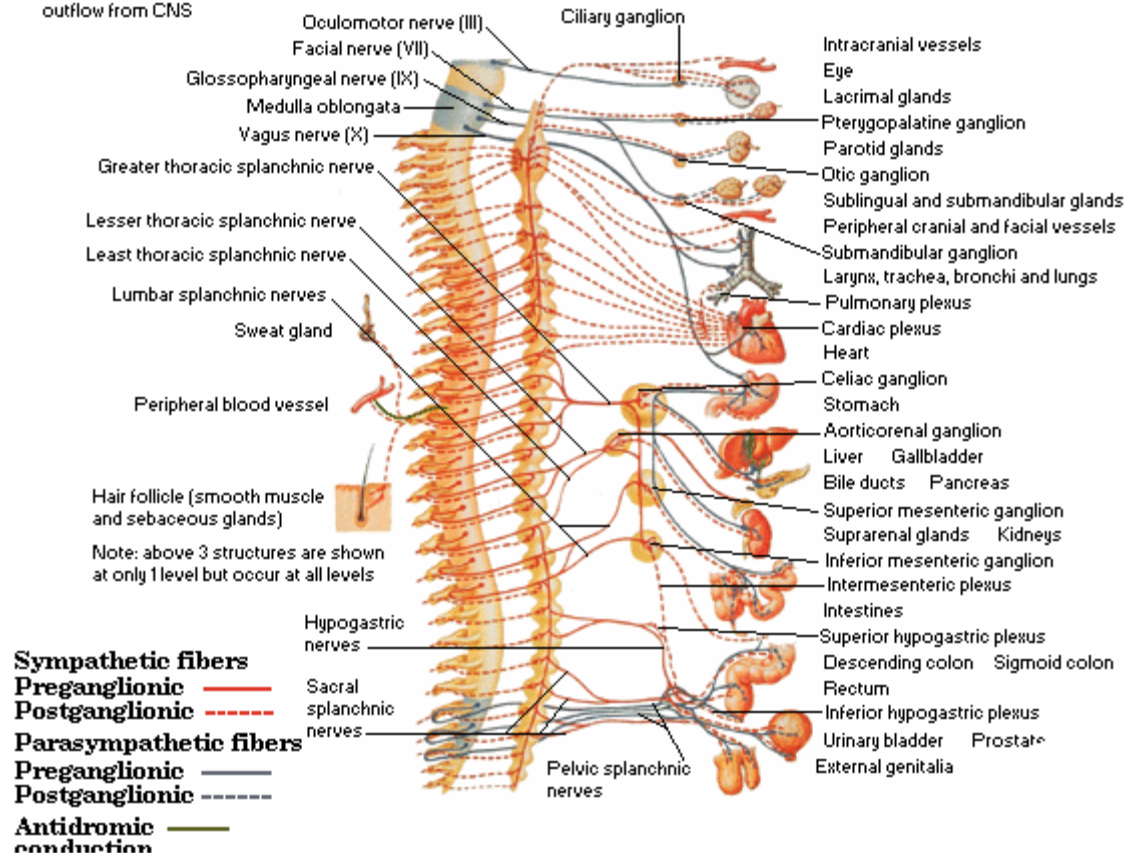


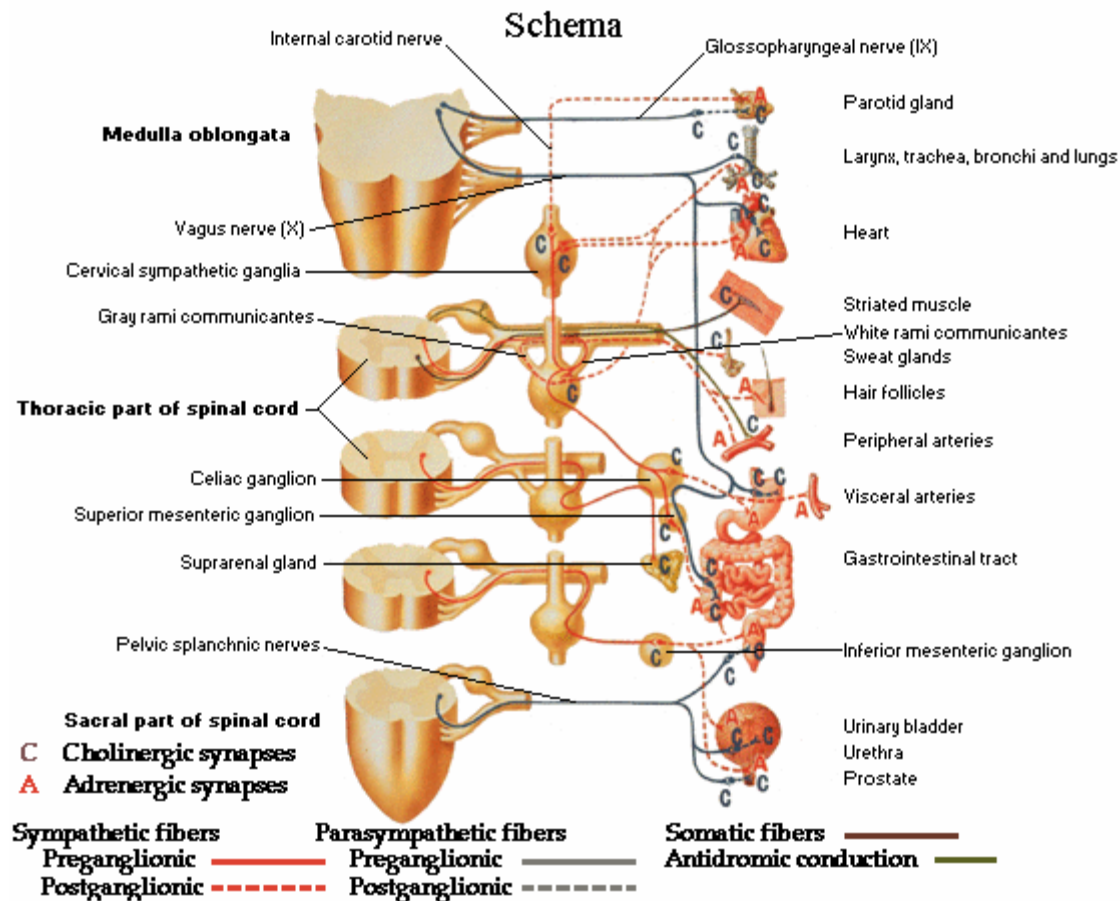
General Topography



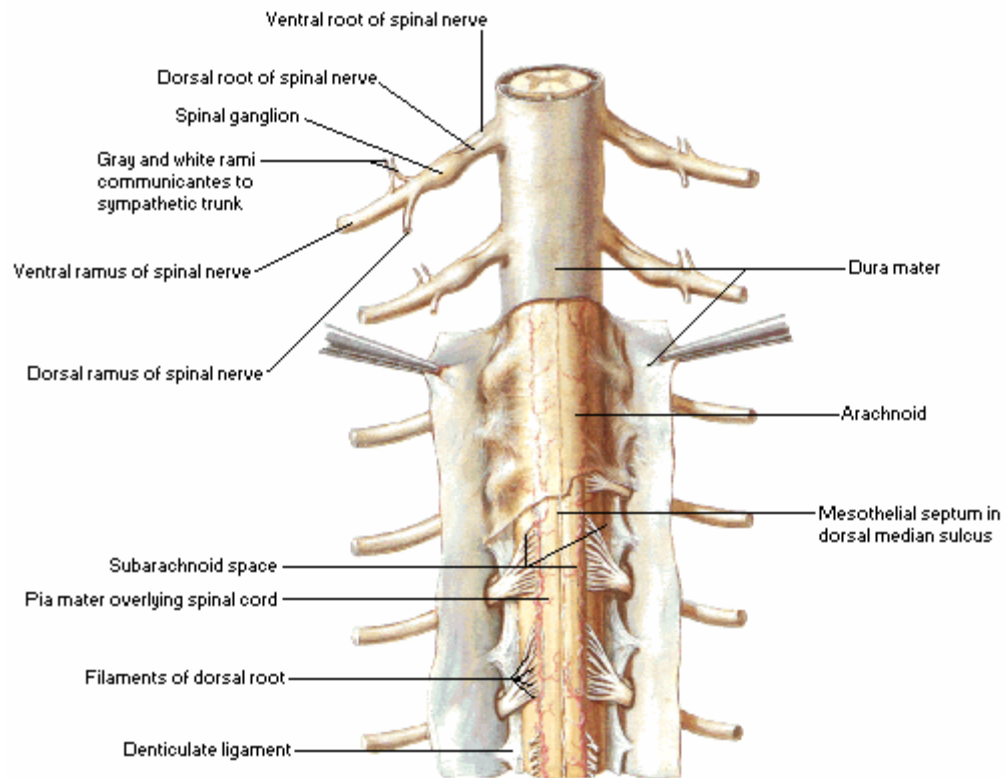
Note: blue- shaded areas indicate zones of parasympathetic outflow from CNS

Schema

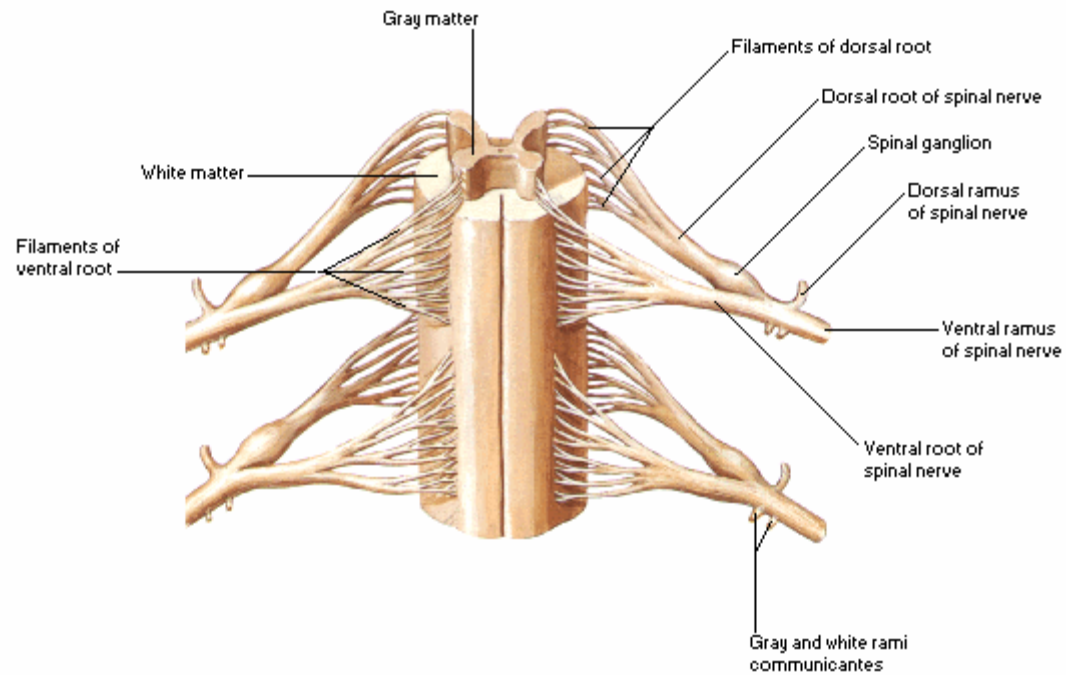




Posterior View

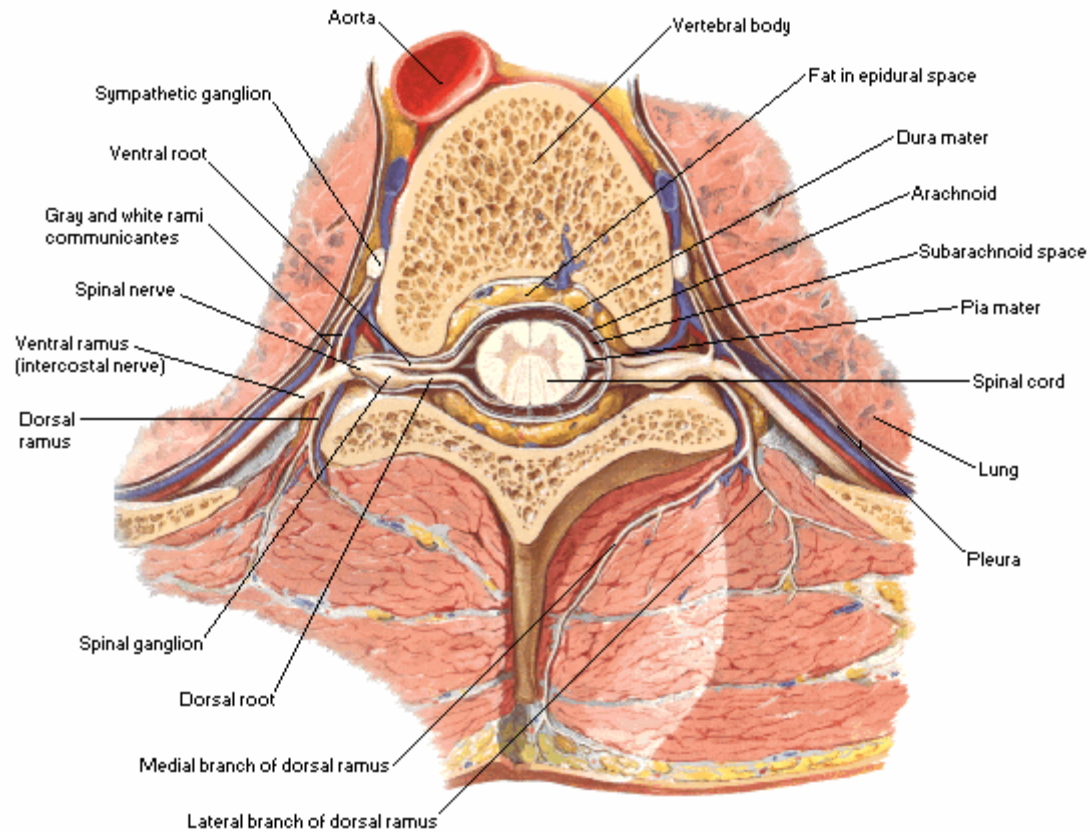


Anterior View

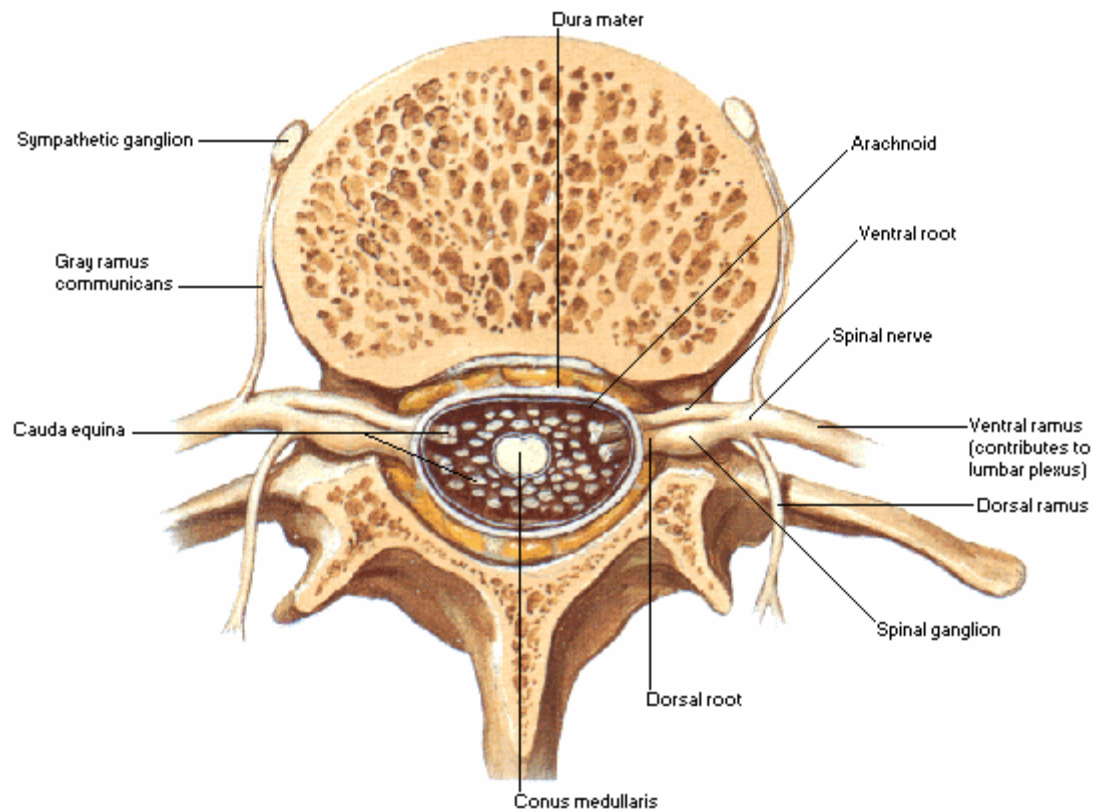


Membranes removed (greatly magnified)

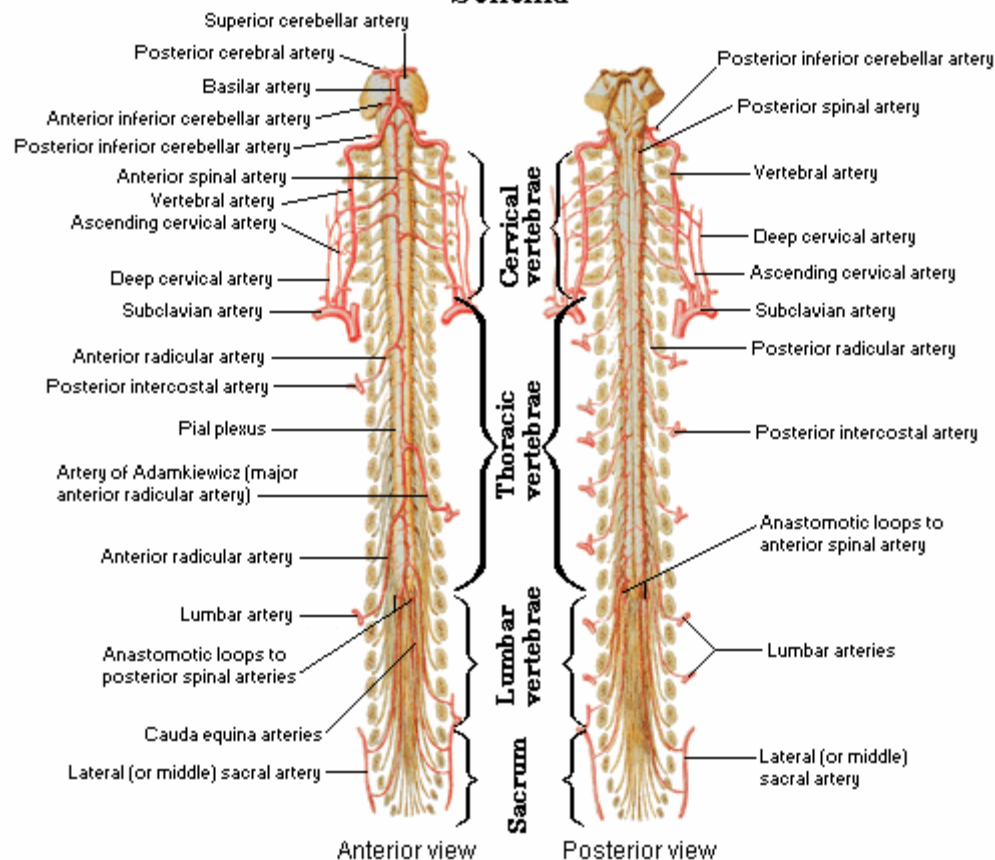
Section through Thoracic Vertebra



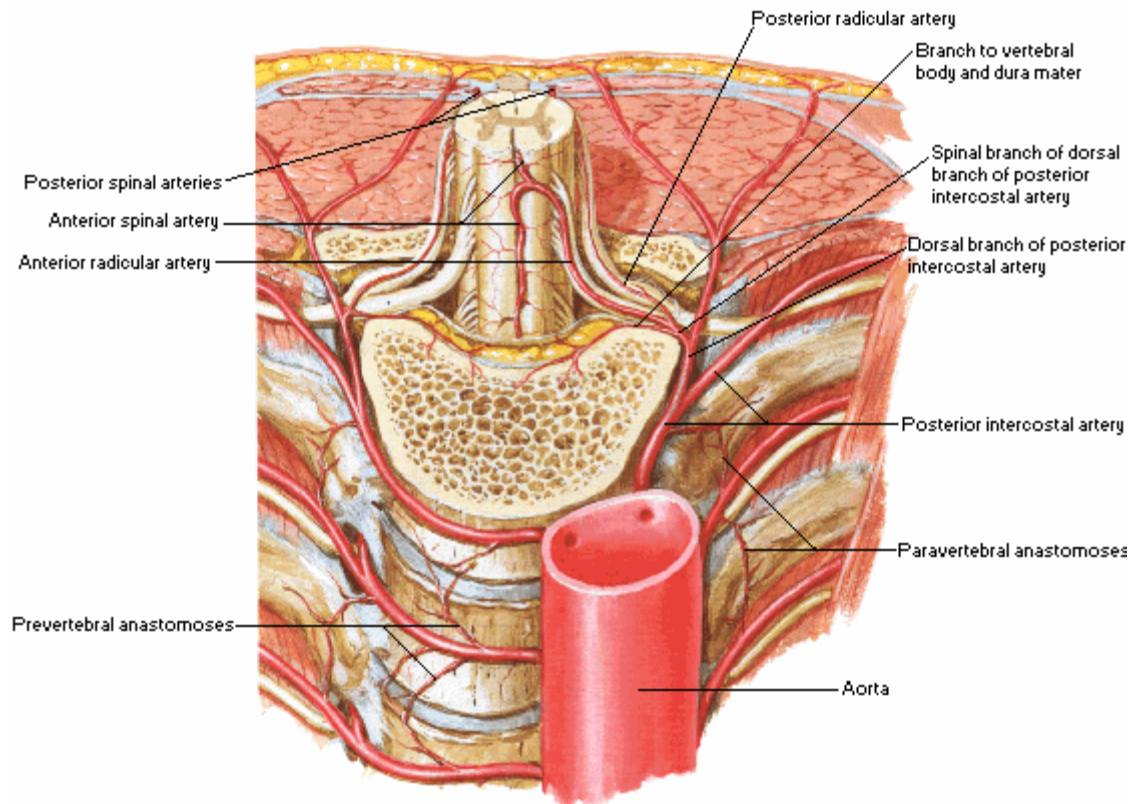
Section through Lumbar Vertebra



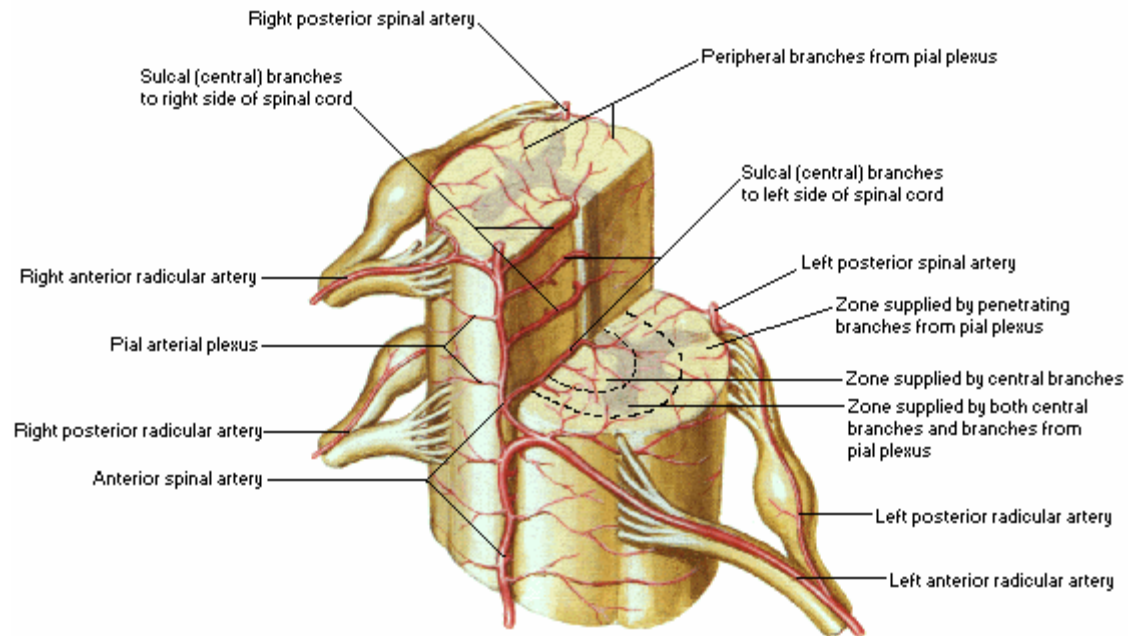
Schema



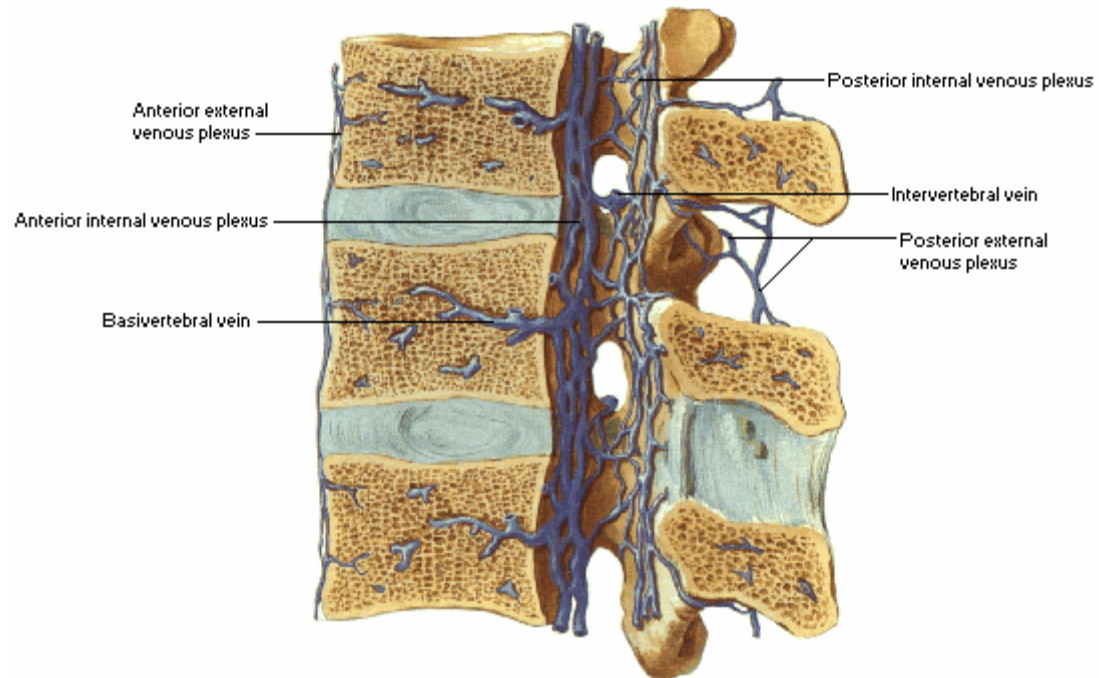
Thoracic Section



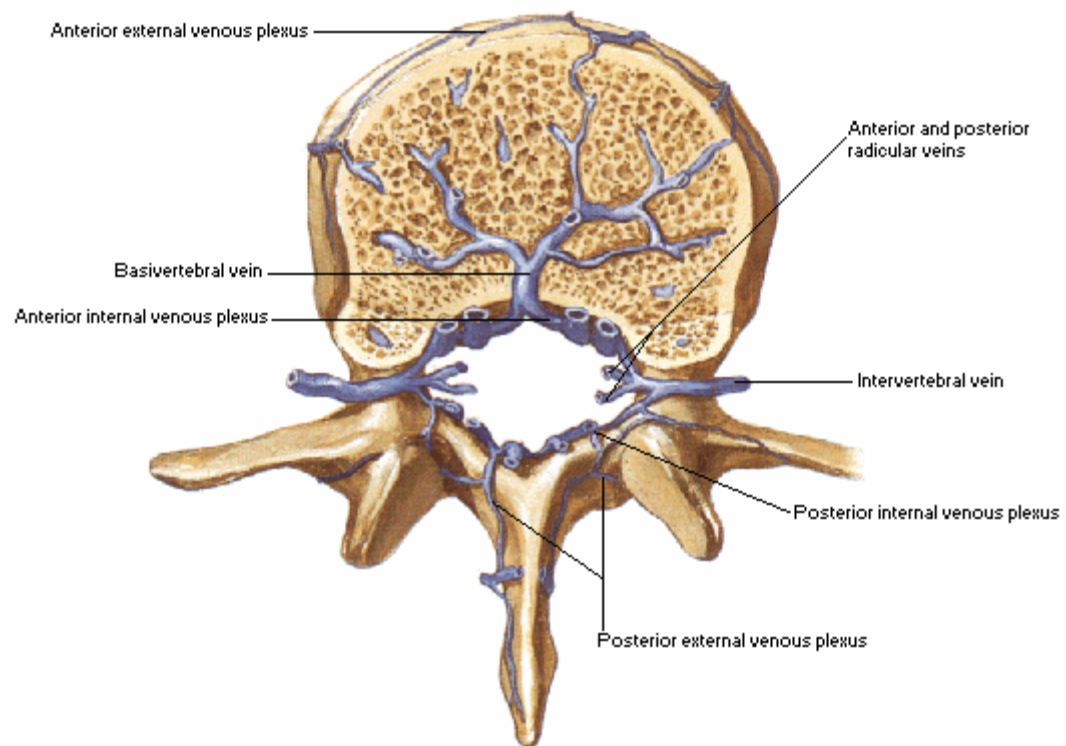
Schema



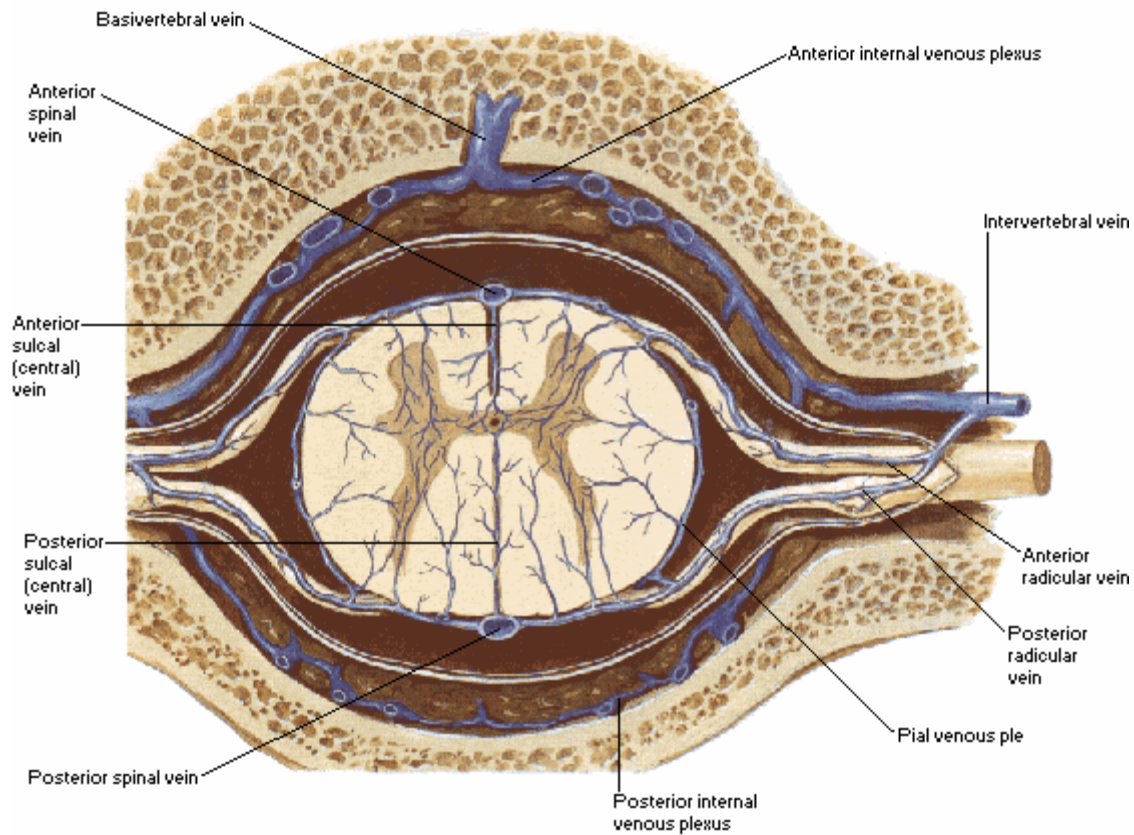
Sagittal Section [without Cord]



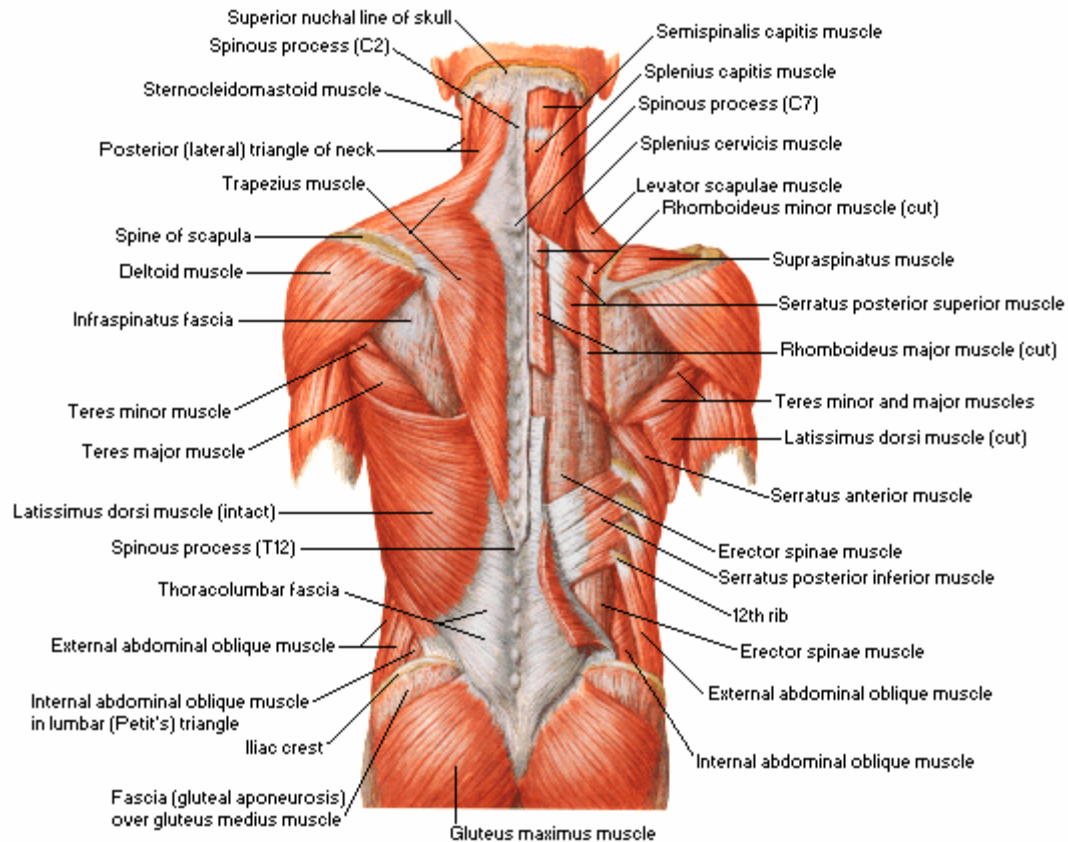
Superior View [without Cord]



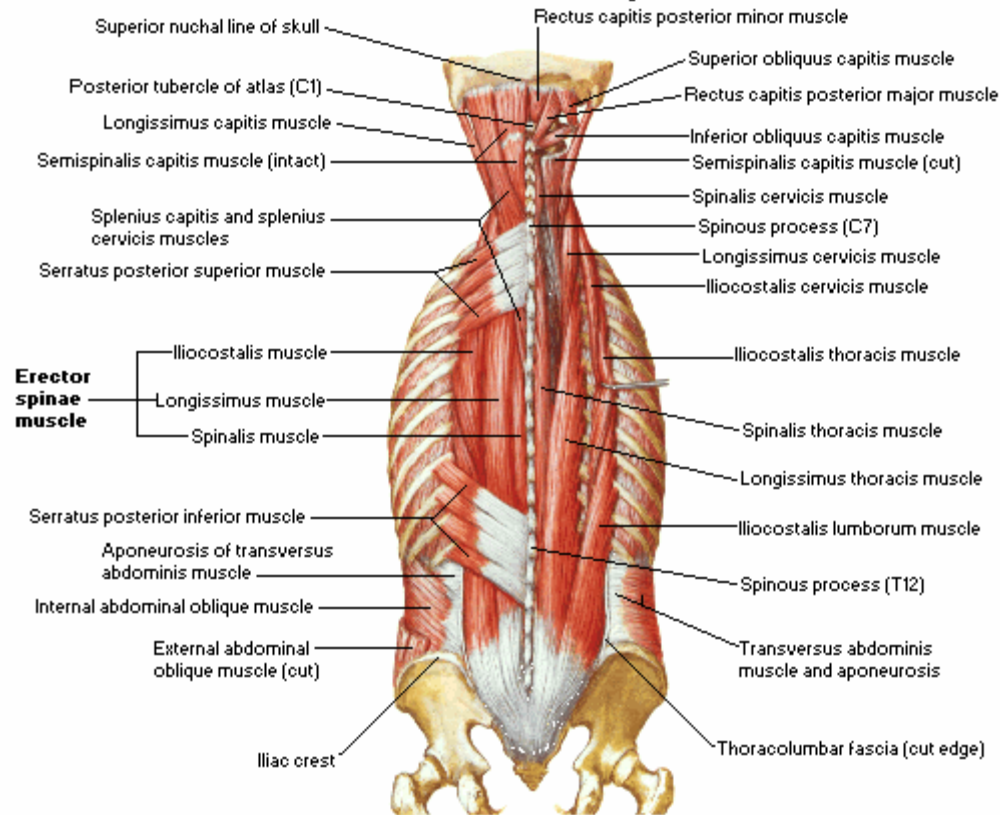
Superior View [Magnified with Cord]



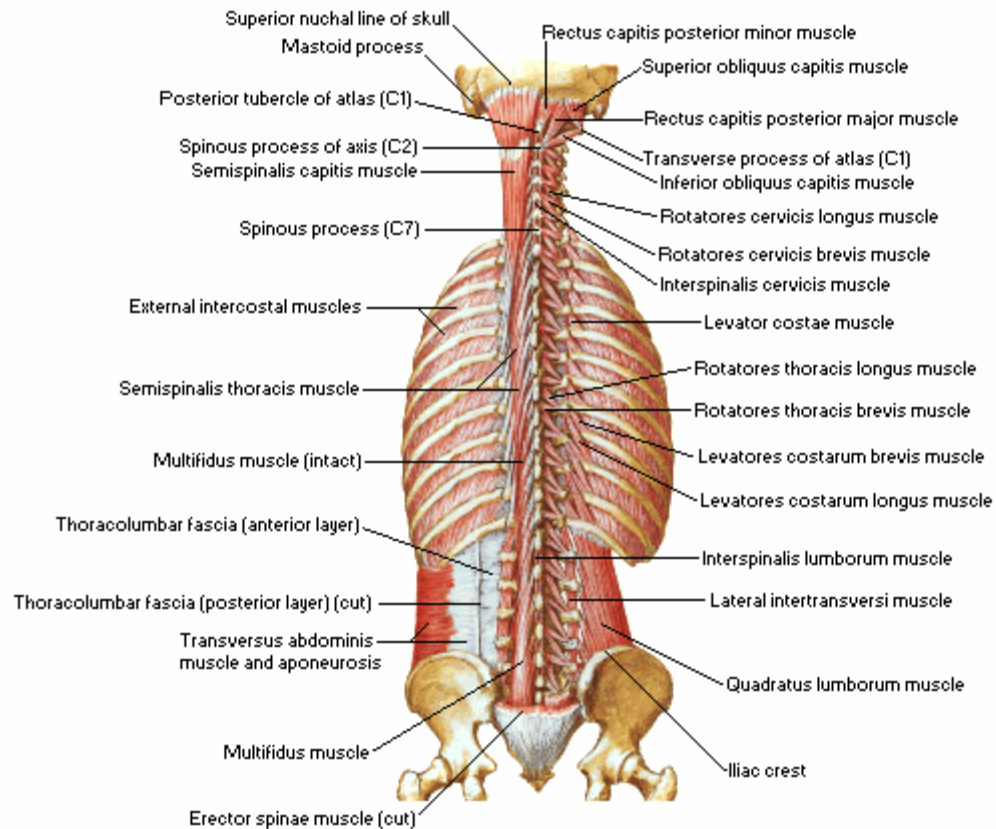
Superficial Layers

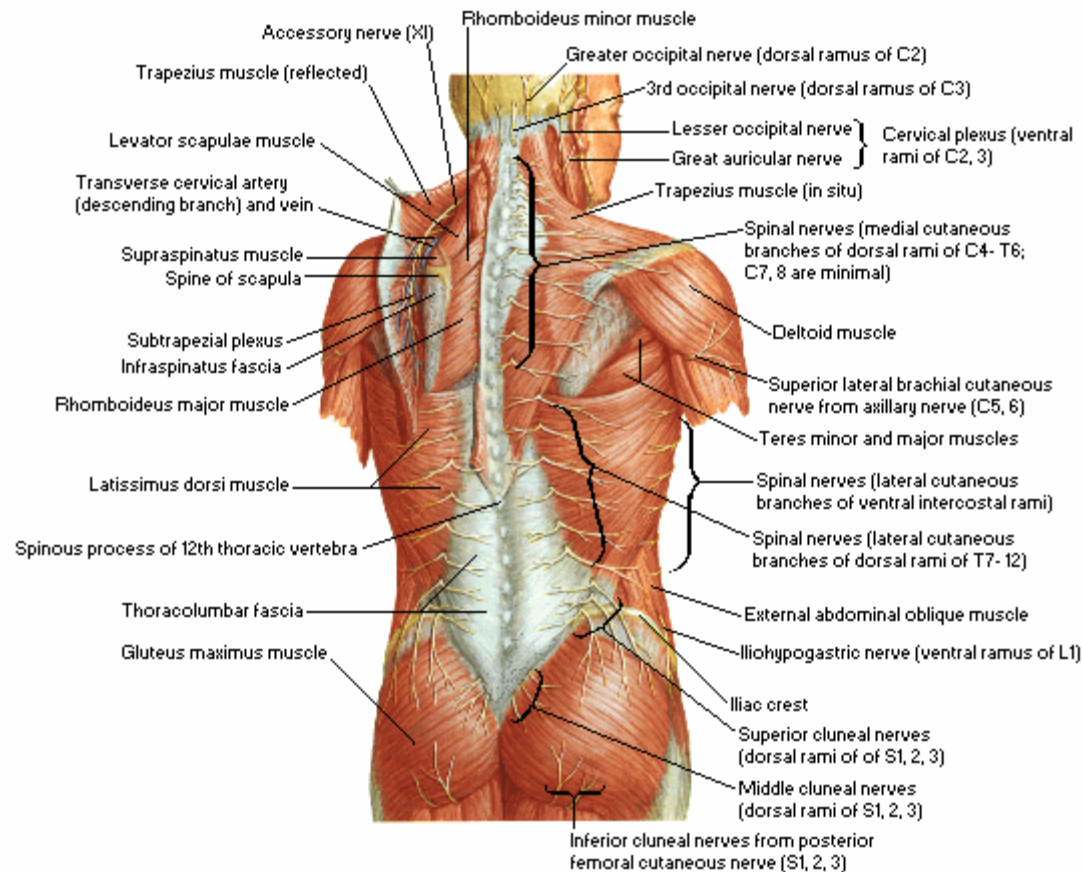


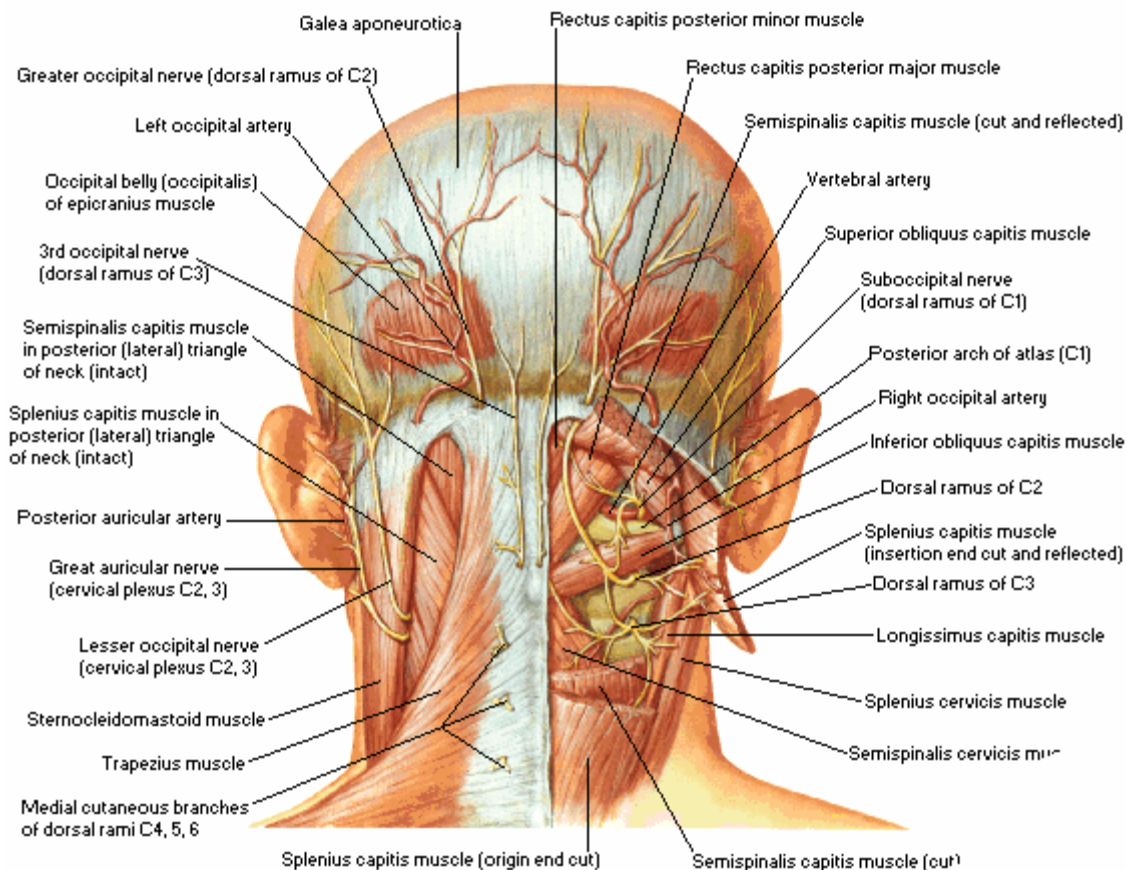
Intermediate Layers



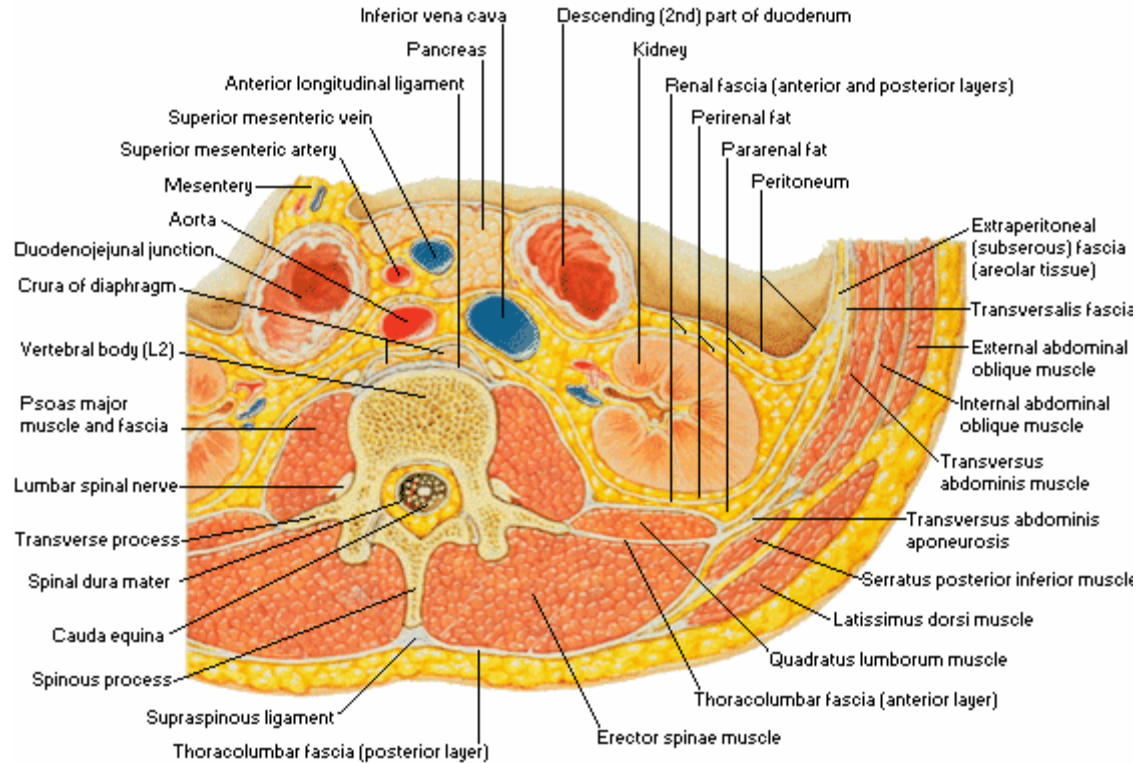
Deep Layers

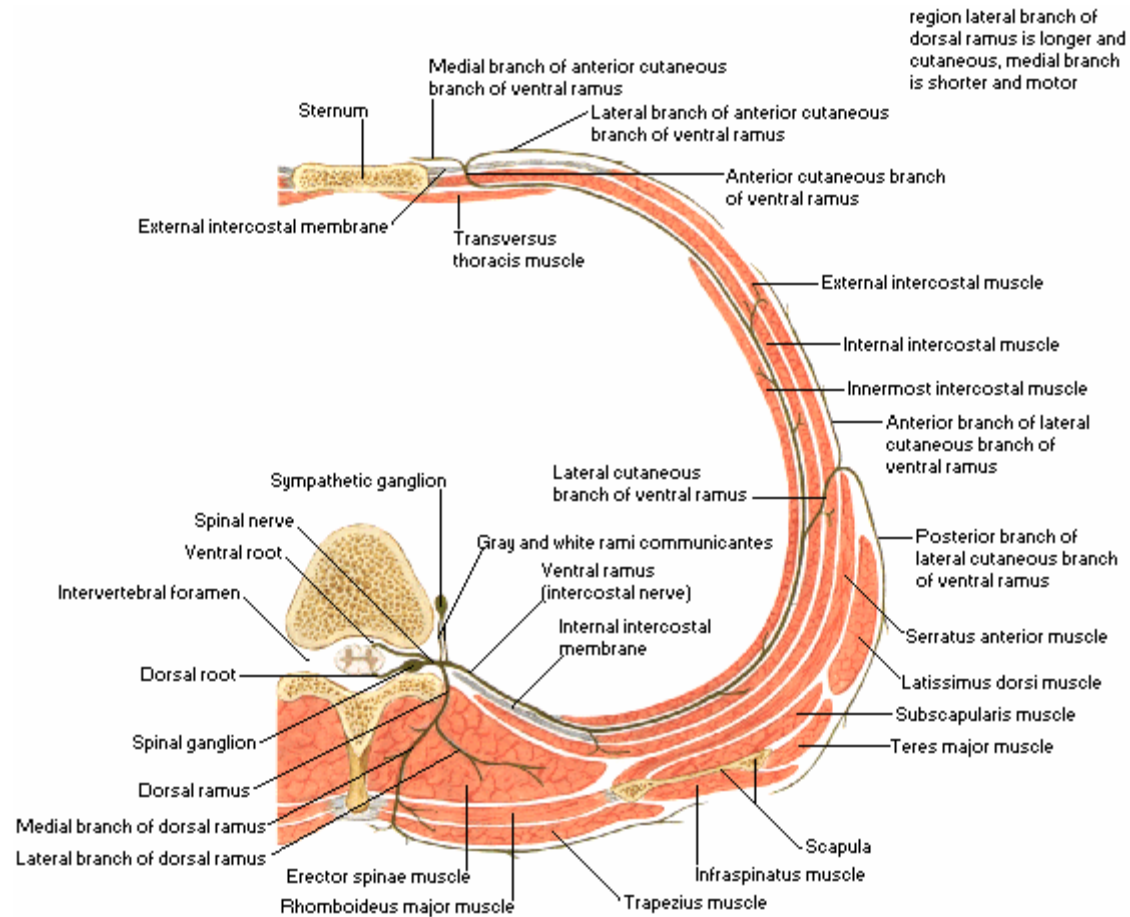




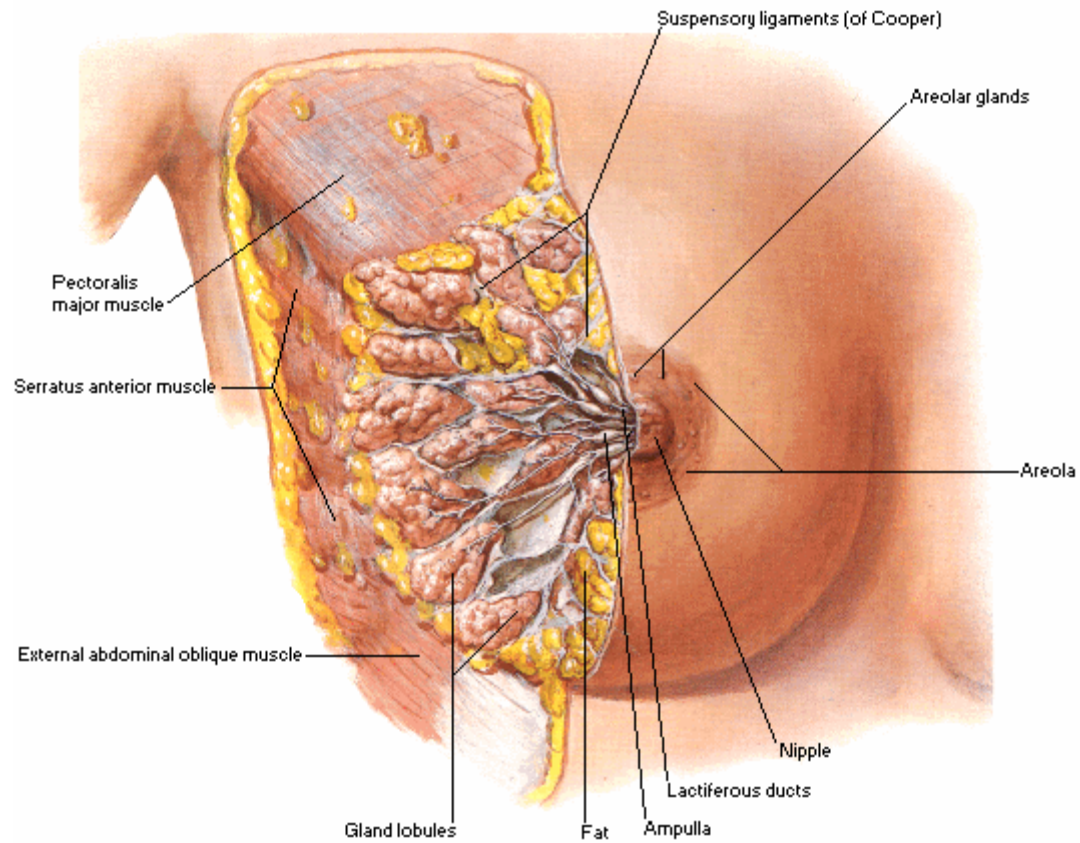


Cross Section

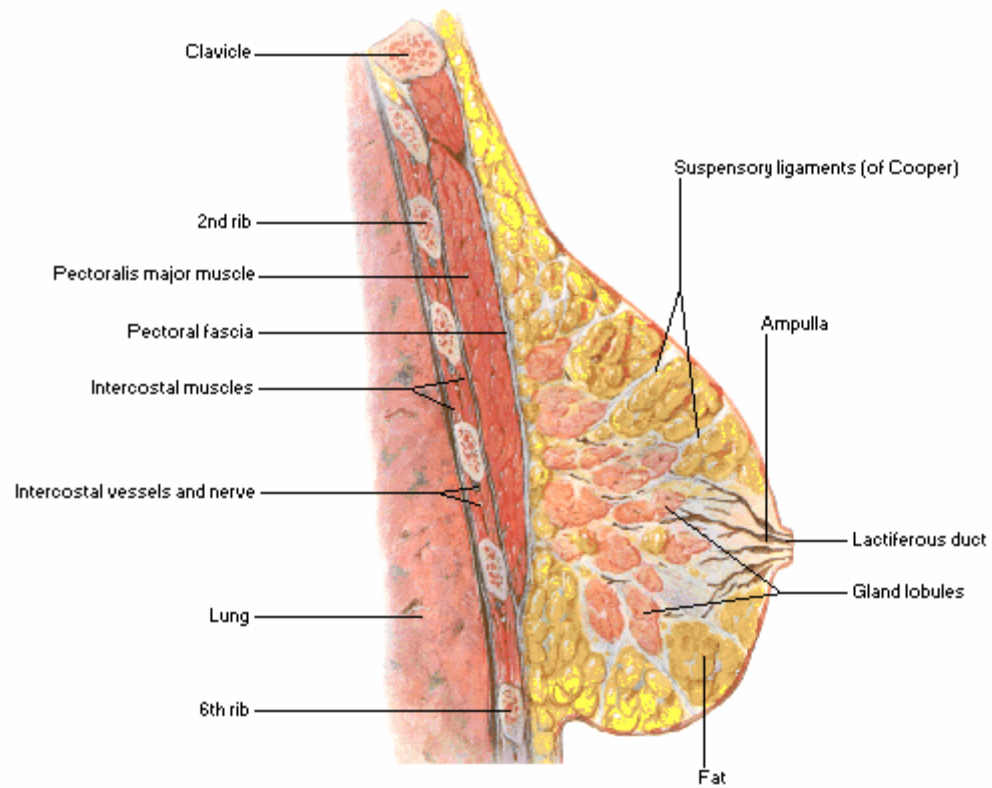


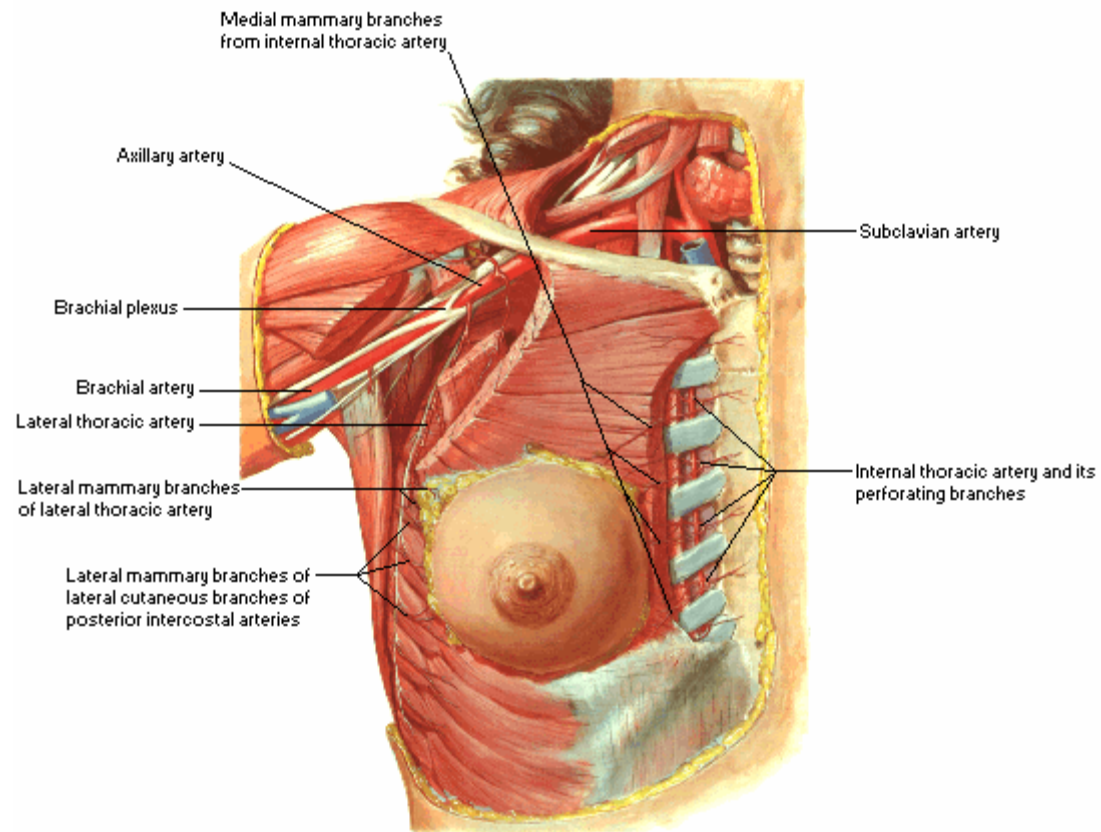


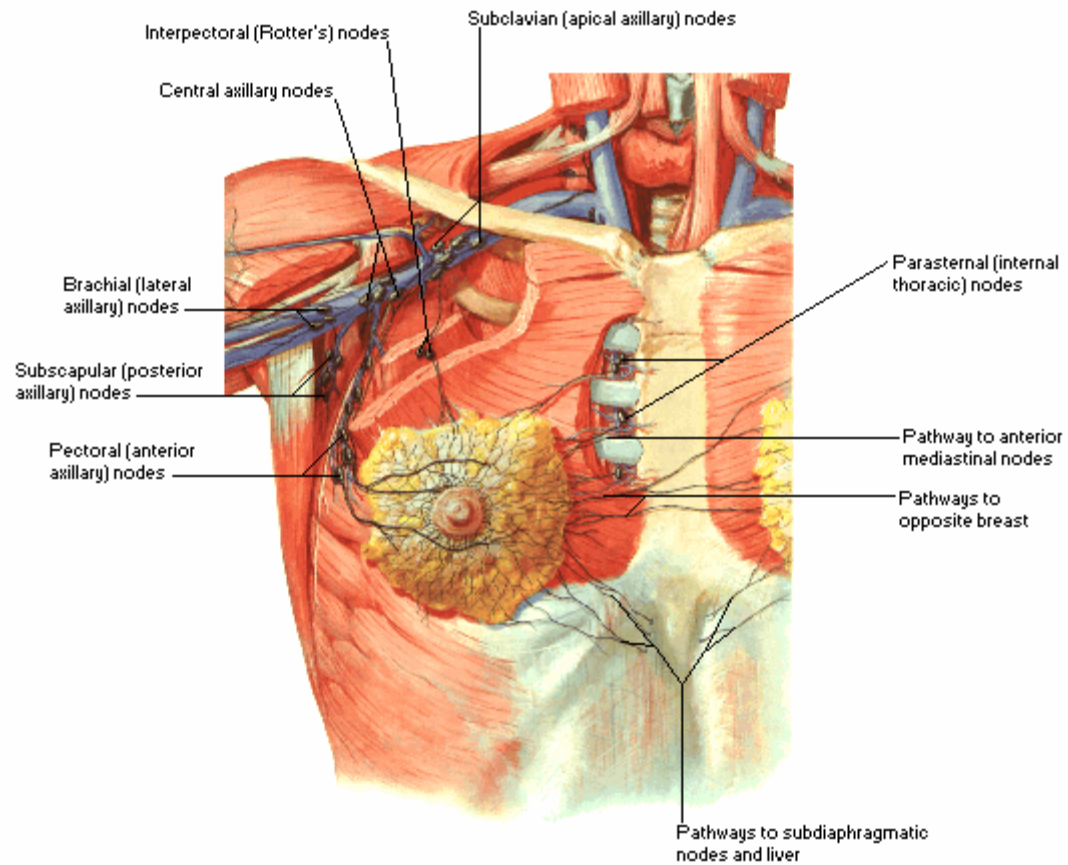
Anterolateral Dissection

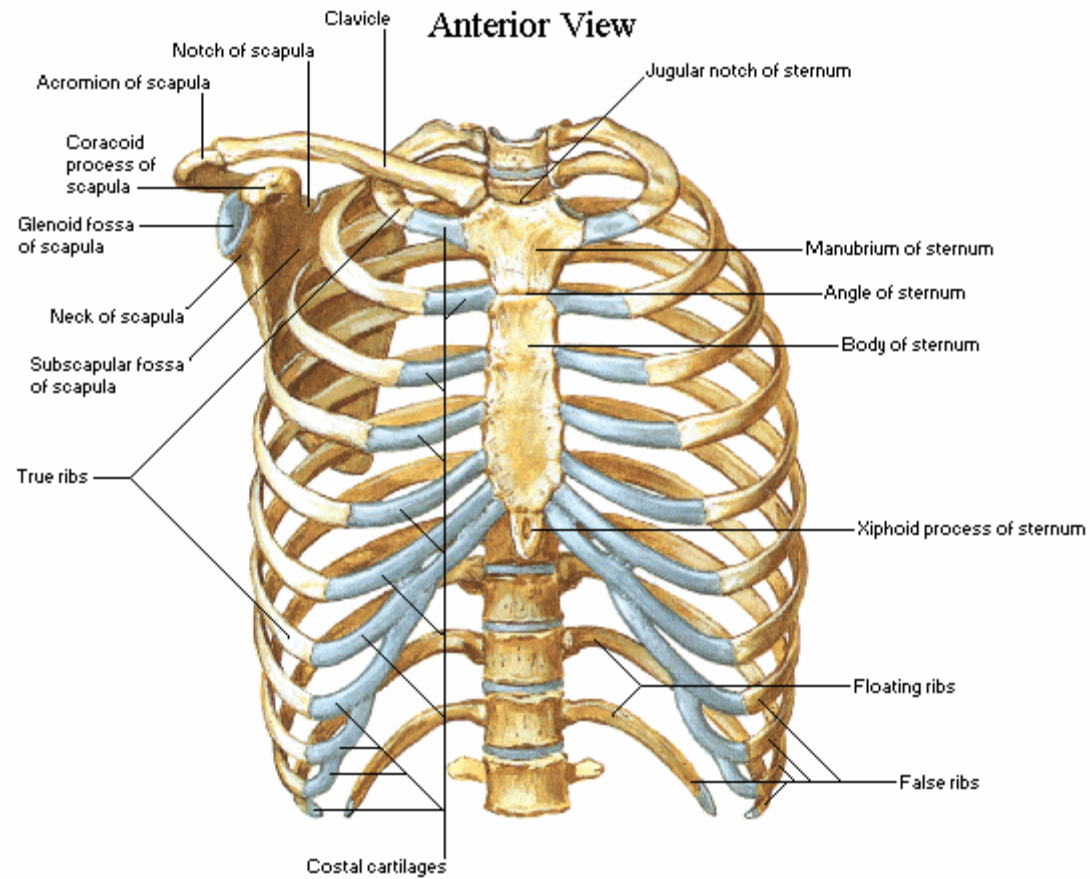


Sagittal Section

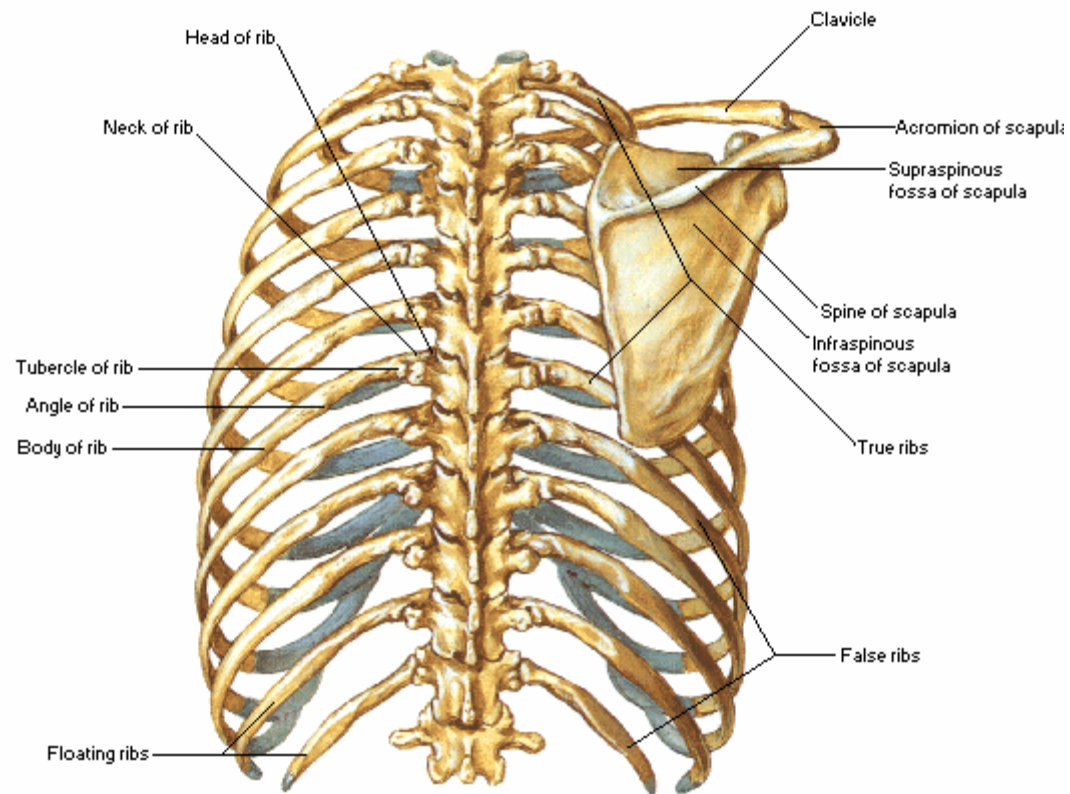




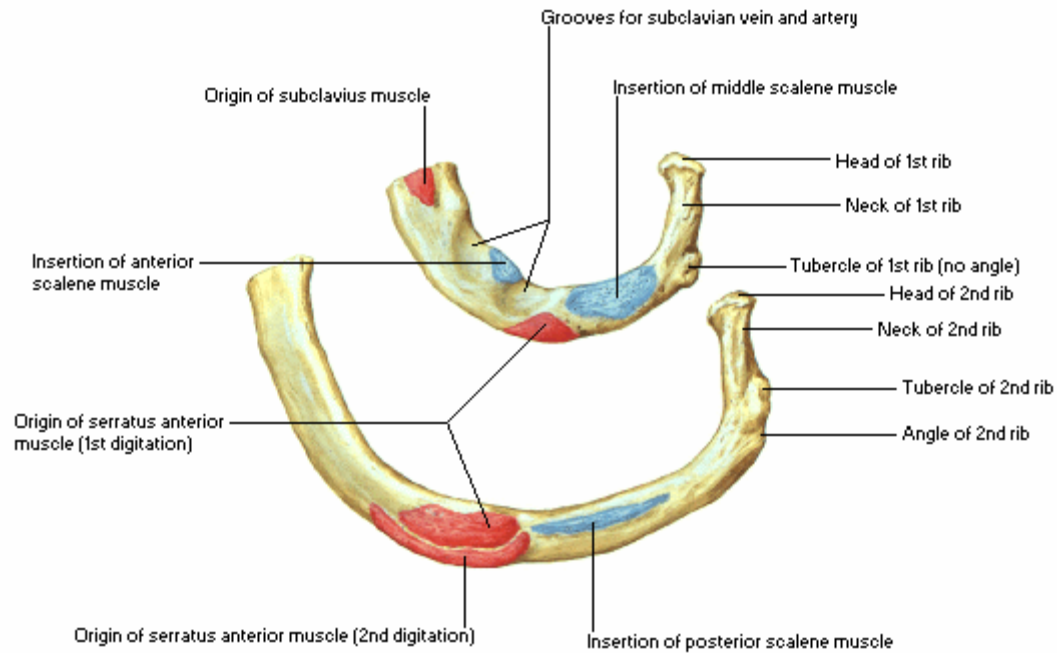




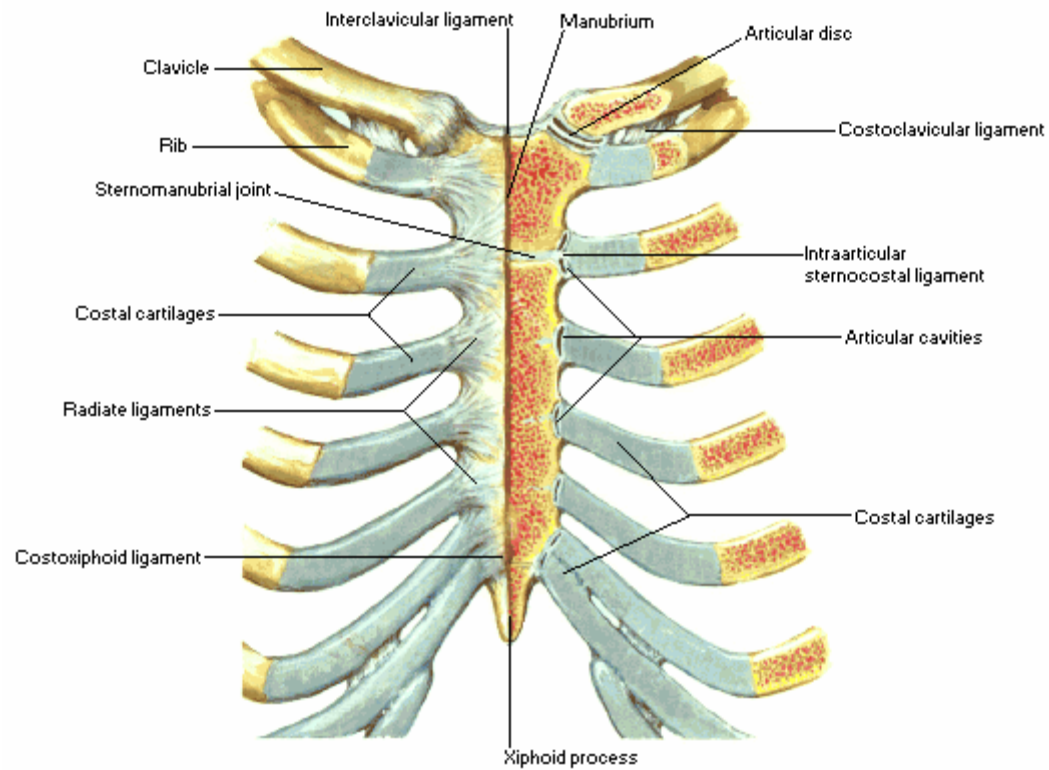
Posterior View



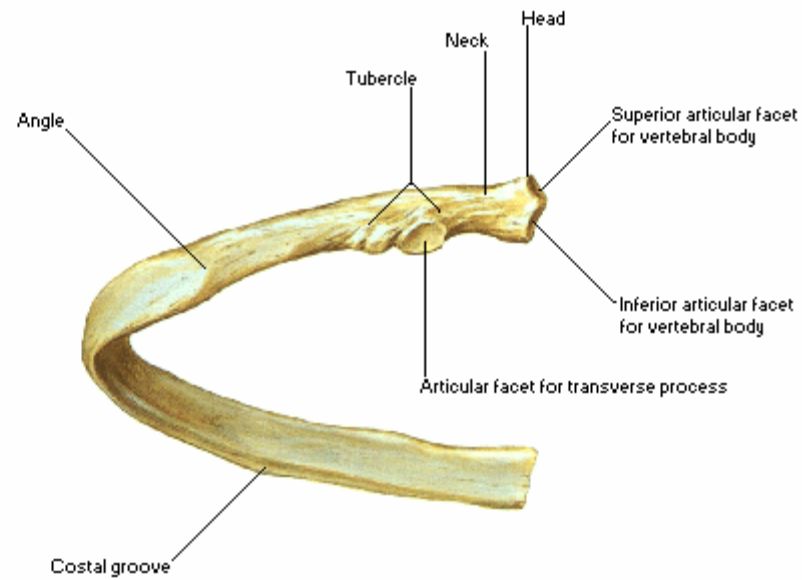
Superior Views



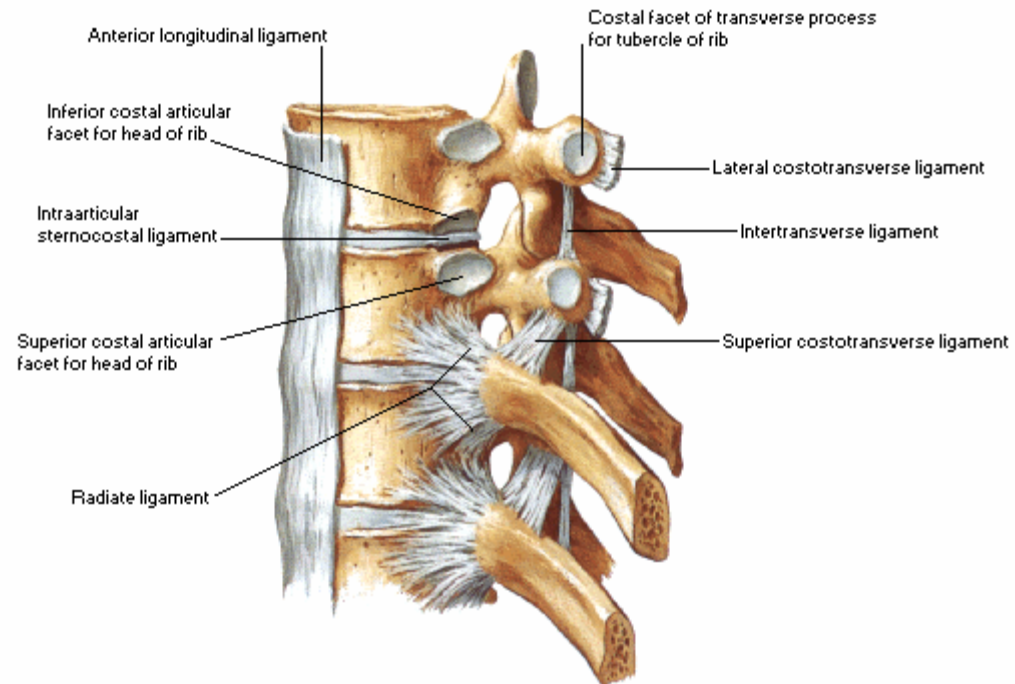
Anterior View



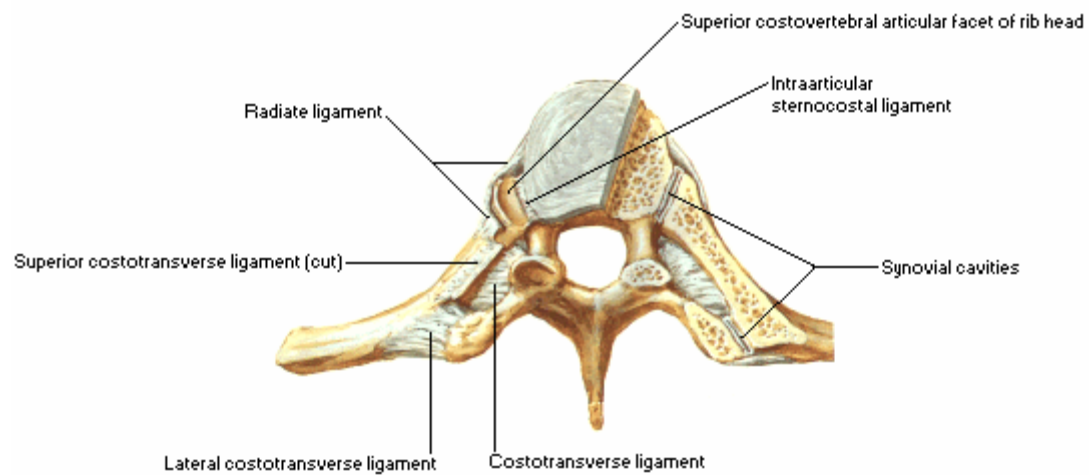
Posterior View



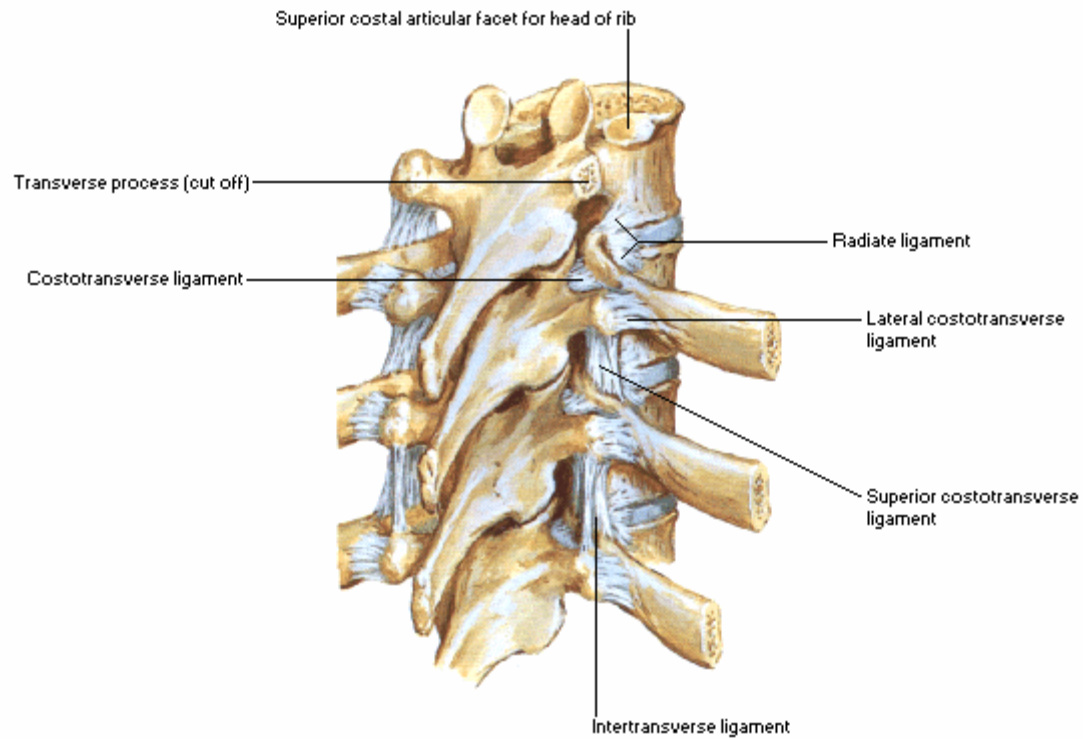
Left Lateral View

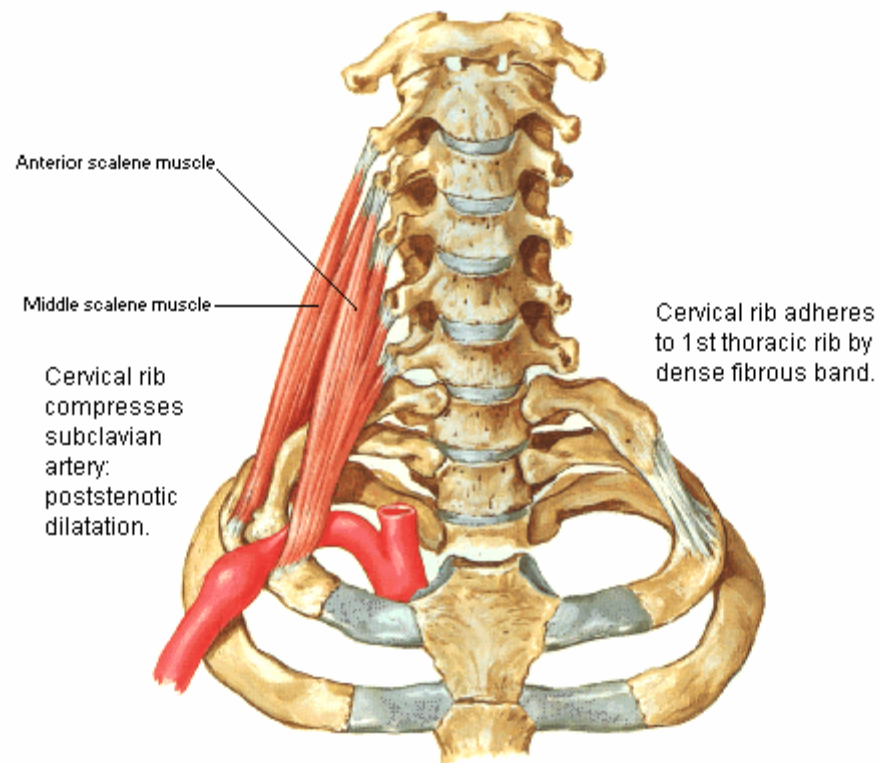


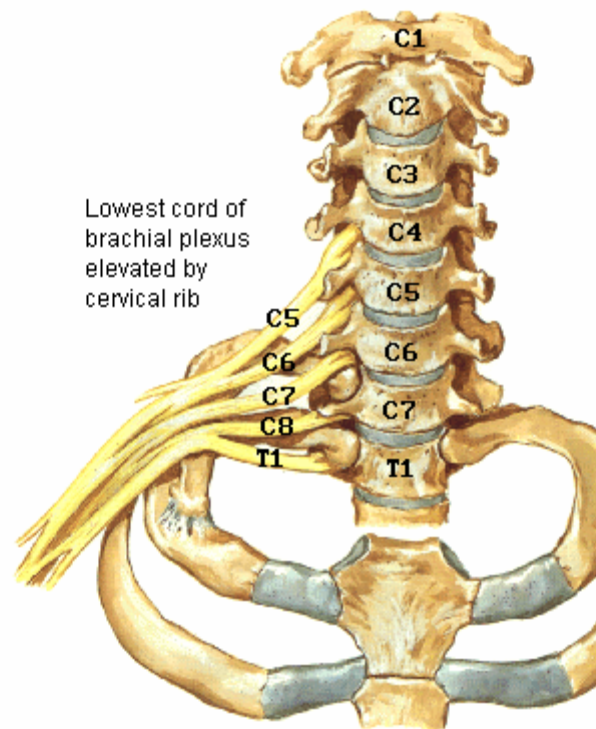
Transverse Section - Superior View

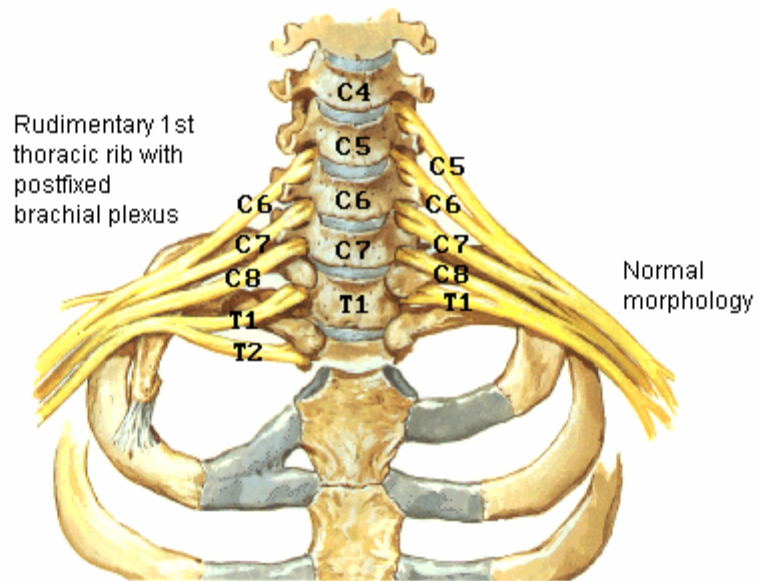


Right Posterolateral View

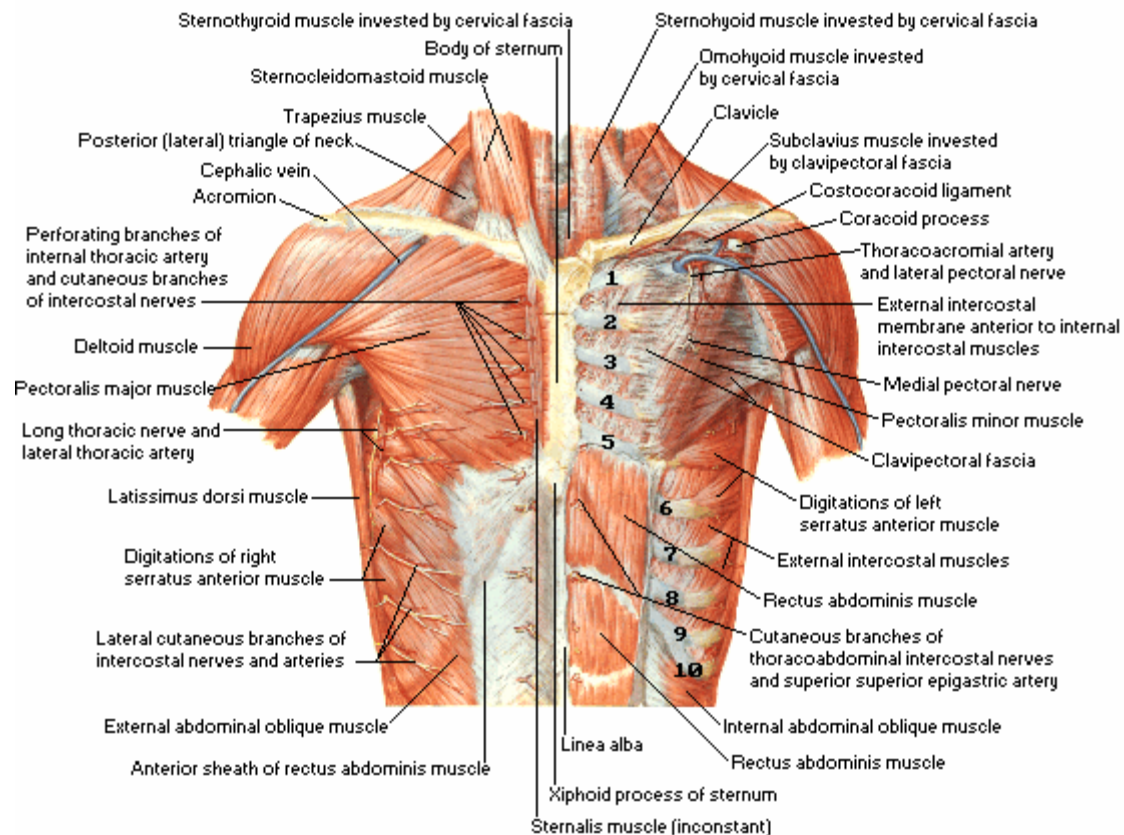


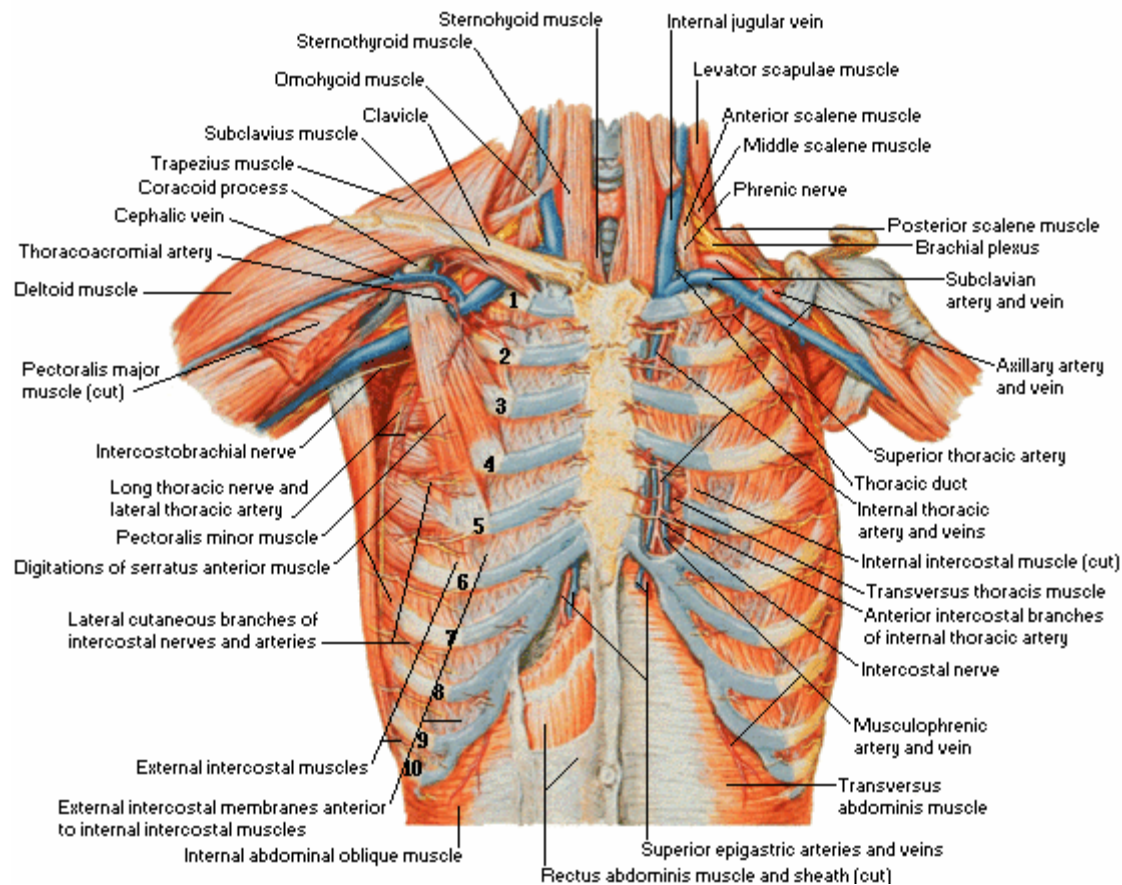




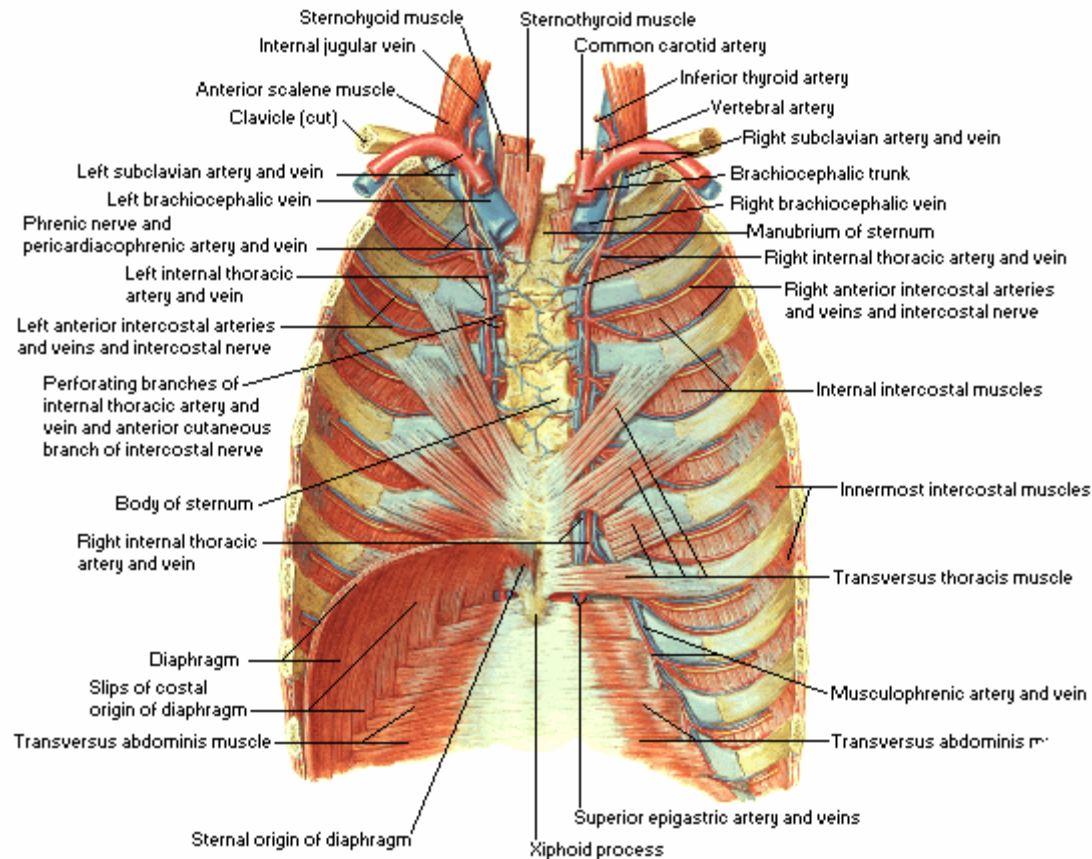


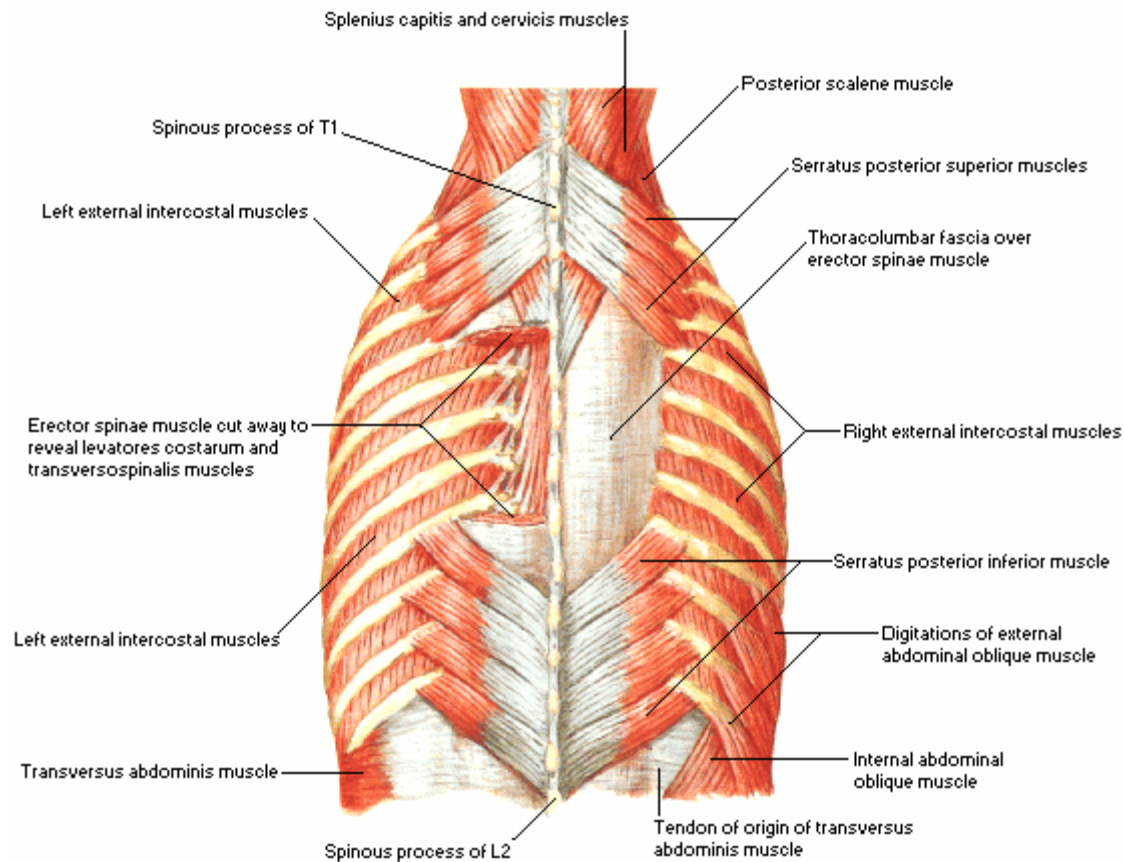
Note: cervical rib also often asymptomatic

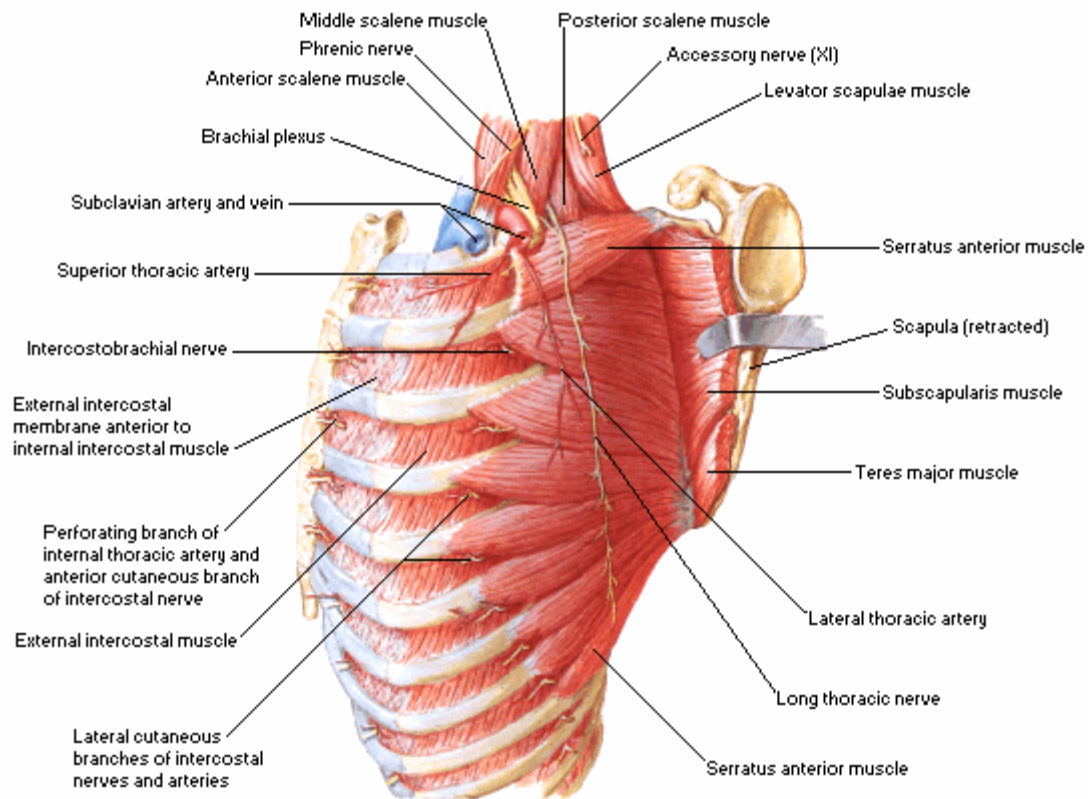


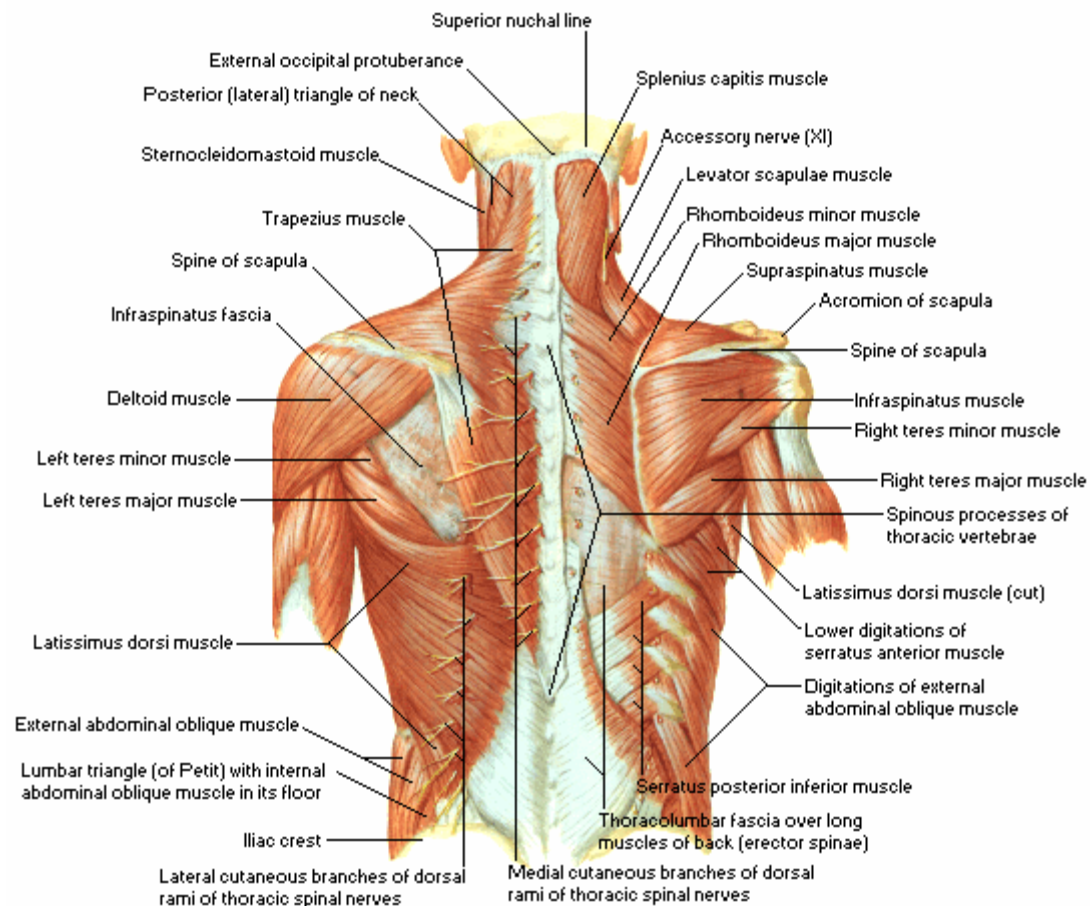


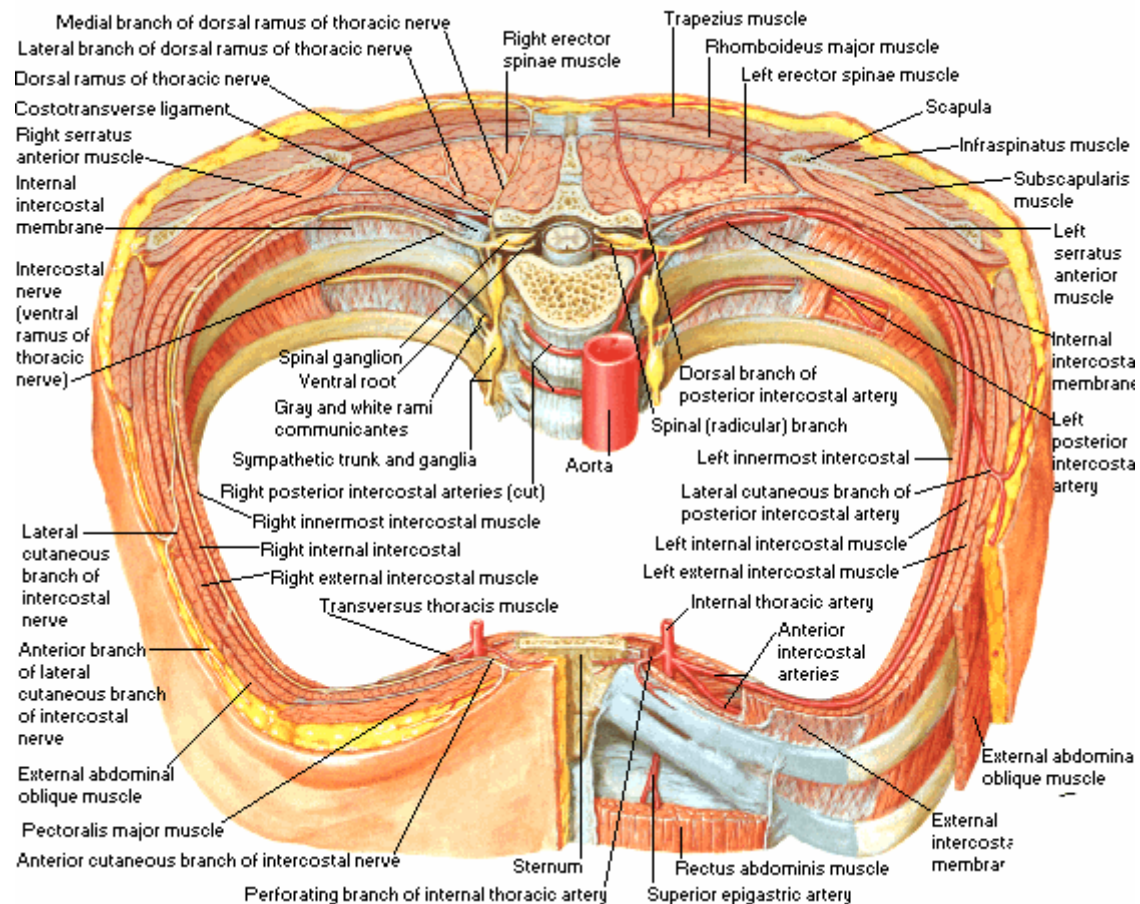
Internal View



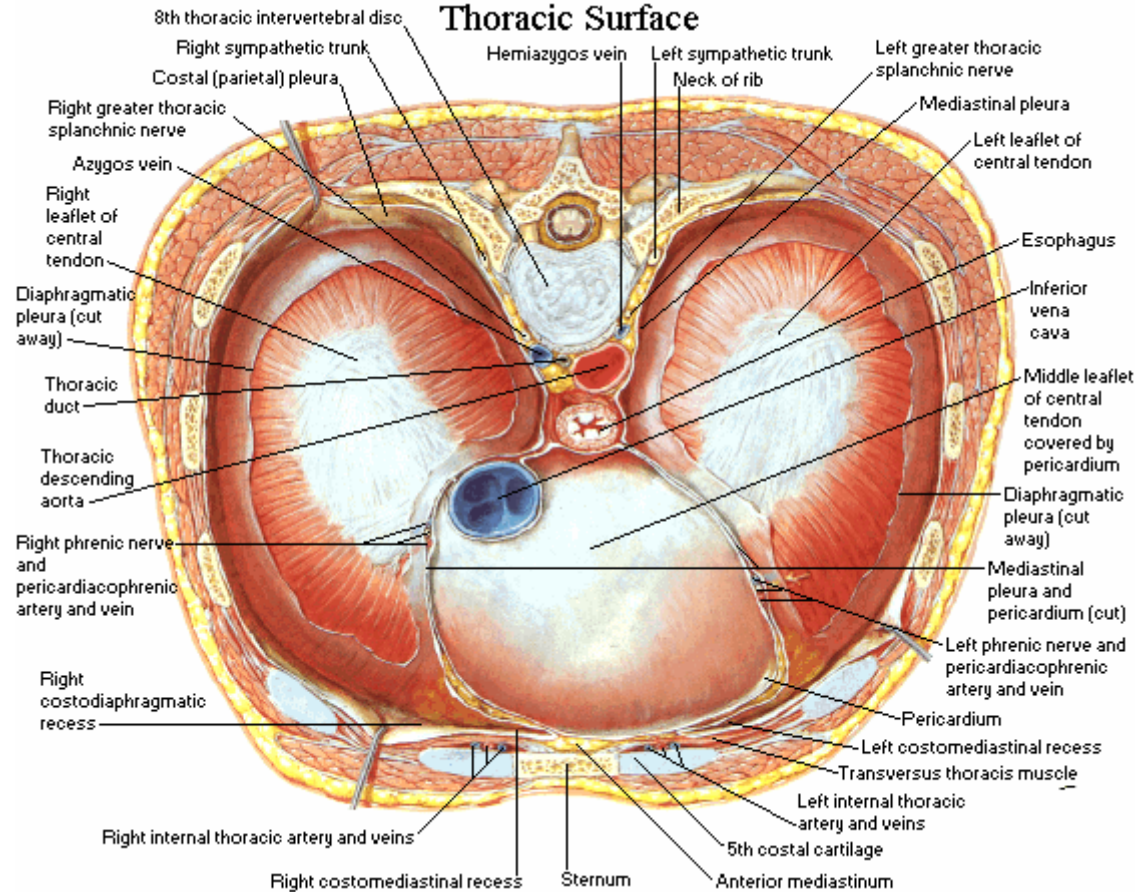




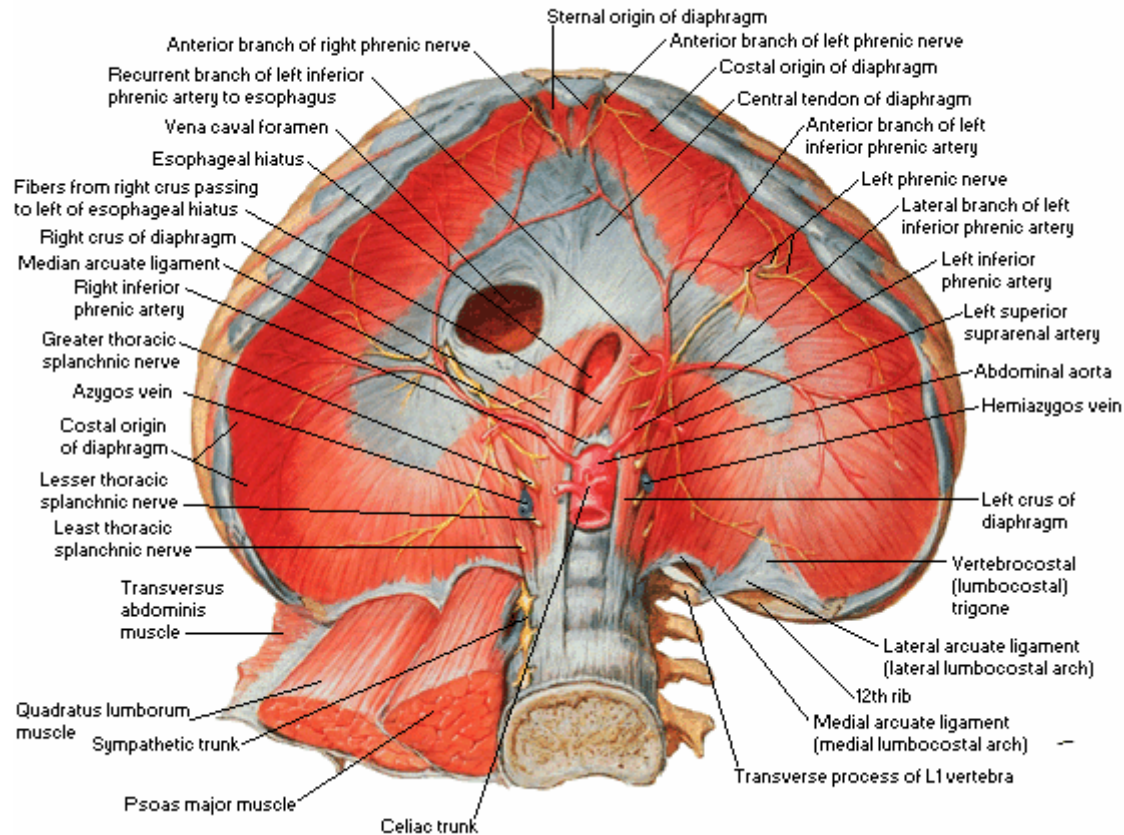


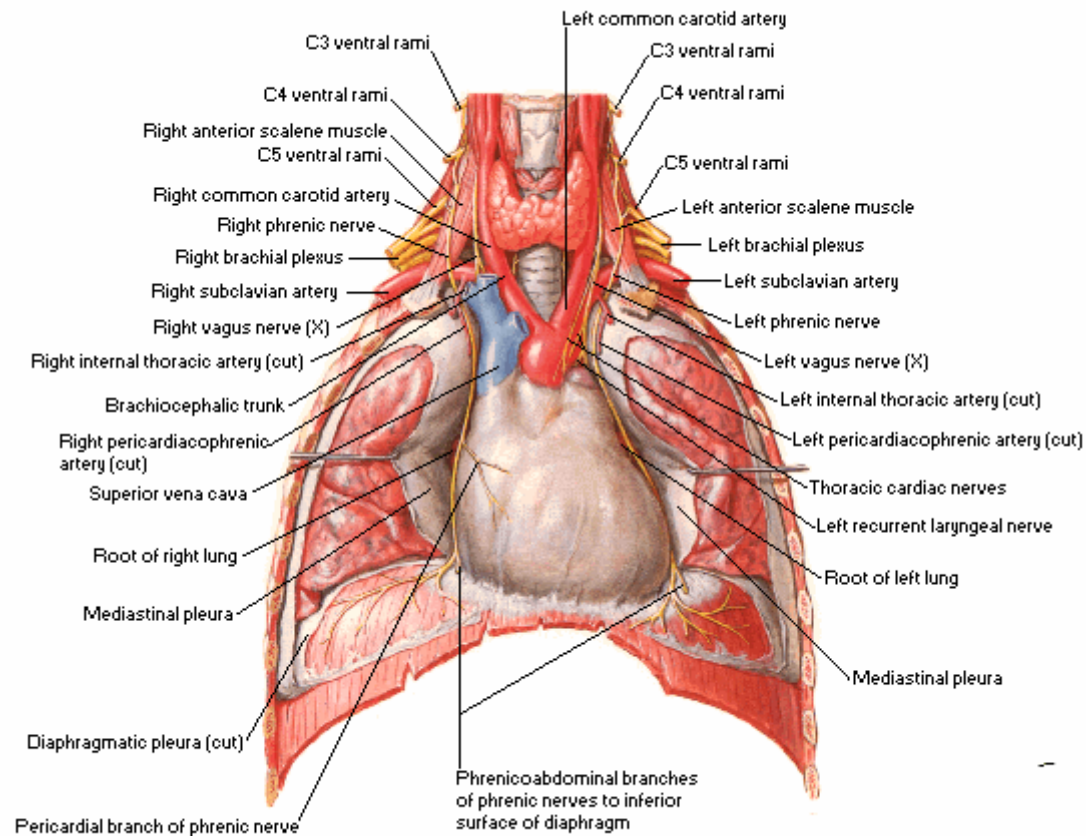


Thoracic Surface

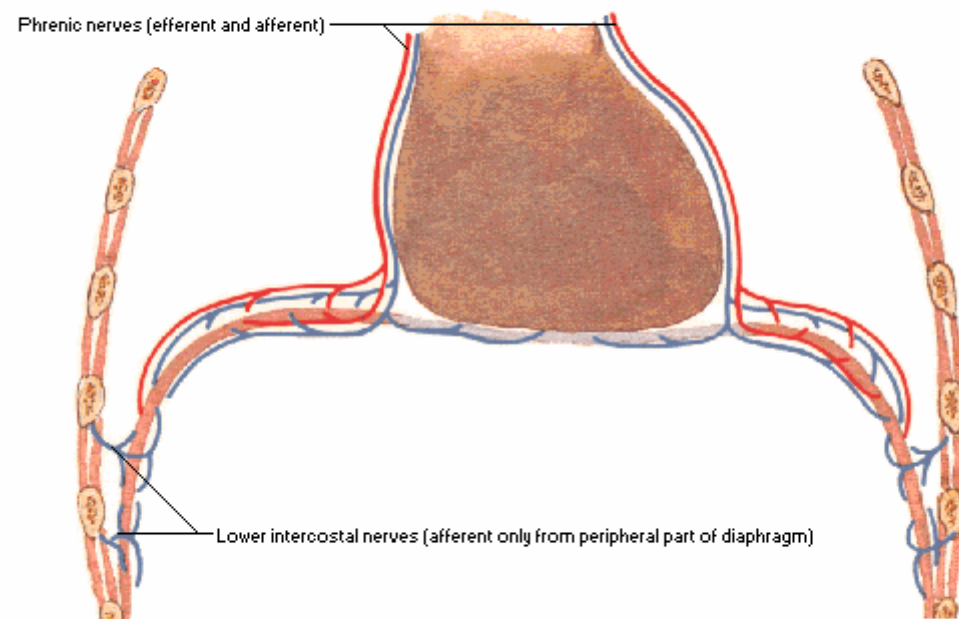


Abdominal Surface





Schema



Muscles of inspiration

Accessory

Sternocleidomastoid

Sternocleidomastoid - This accessory muscle of inspiration elevates the sternum.

Middle scalene

Anterior scalene

Posterior scalene

Scalenes - These accessory muscles of inspiration elevate and fix the upper ribs.

Principal

External intercostals

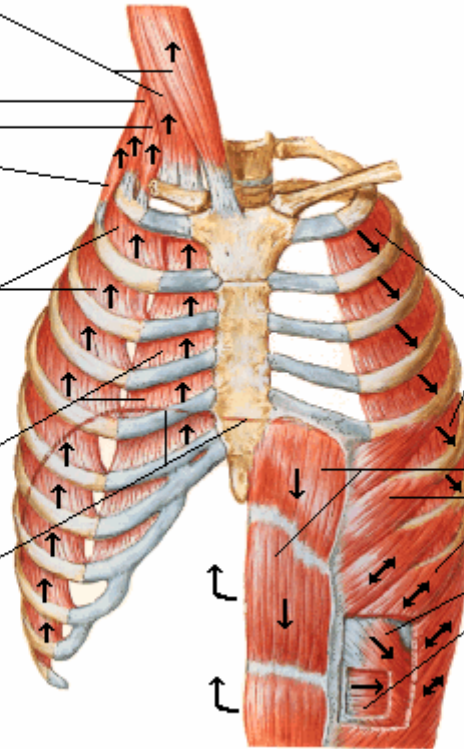
External intercostals - These principal muscles of inspiration elevate the ribs, thus increasing the width of the thoracic cavity.

Interchondral part of internal intercostals

Interchondral part - This part acts as a principal muscle of inspiration by elevating the ribs.

Diaphragm

Diaphragm - The domes of this principal muscle of inspiration descend, thus increasing the longitudinal dimension of the thoracic cavity. The diaphragm also helps in elevating the lower ribs.



Muscles of expiration

Quiet breathing

Expiration results from passive recoil of lungs

Active breathing

Internal intercostals, except interchondral part

Internal intercostals - These muscles of active expiration lower the ribs, thus decreasing the width of the thoracic cavity.

Rectus abdominis

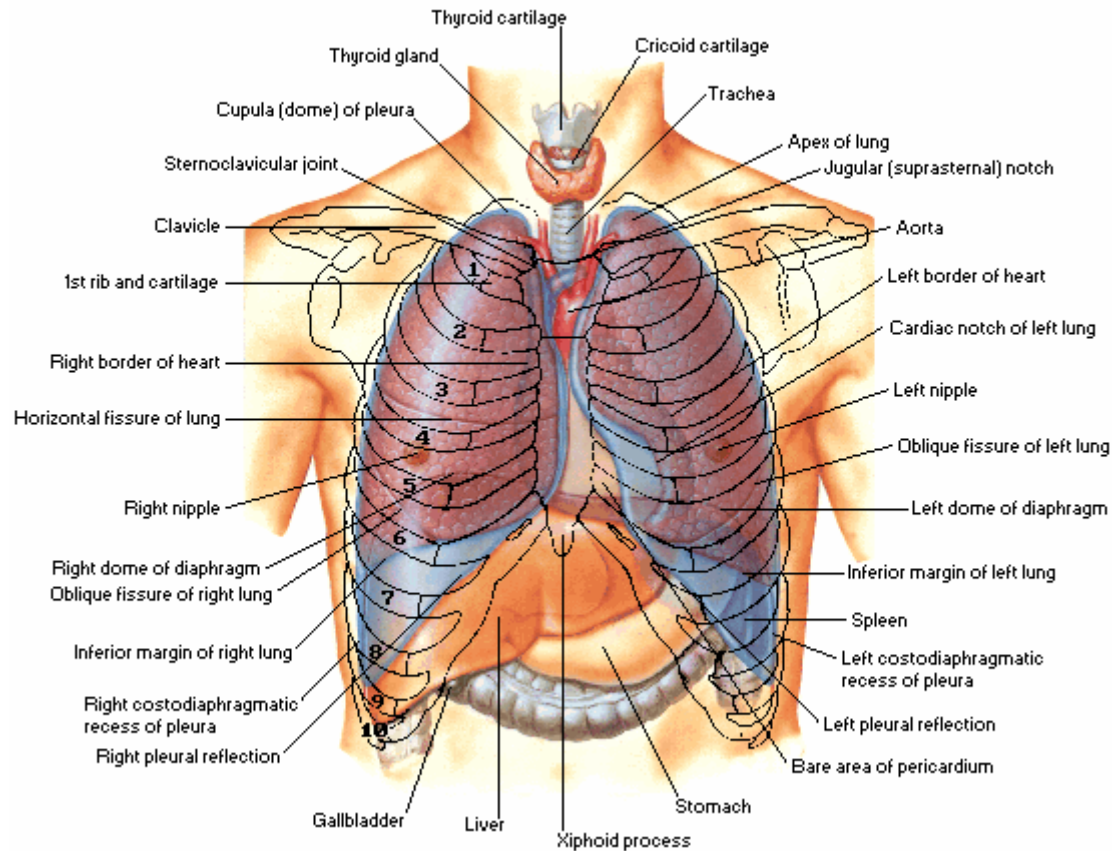
External oblique

Internal oblique

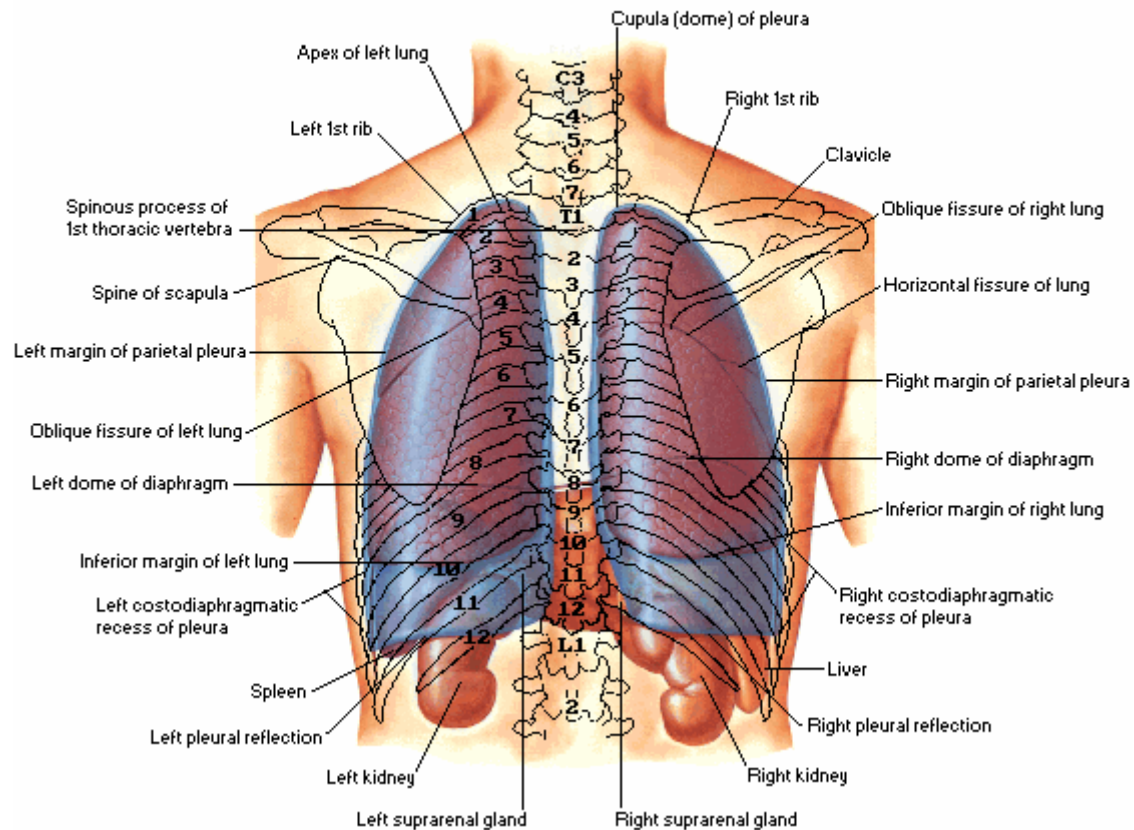
Transversus abdominis

Abdominal muscles - This muscle of active expiration depresses the lower ribs and compresses abdominal contents, thus pushing up the diaphragm.

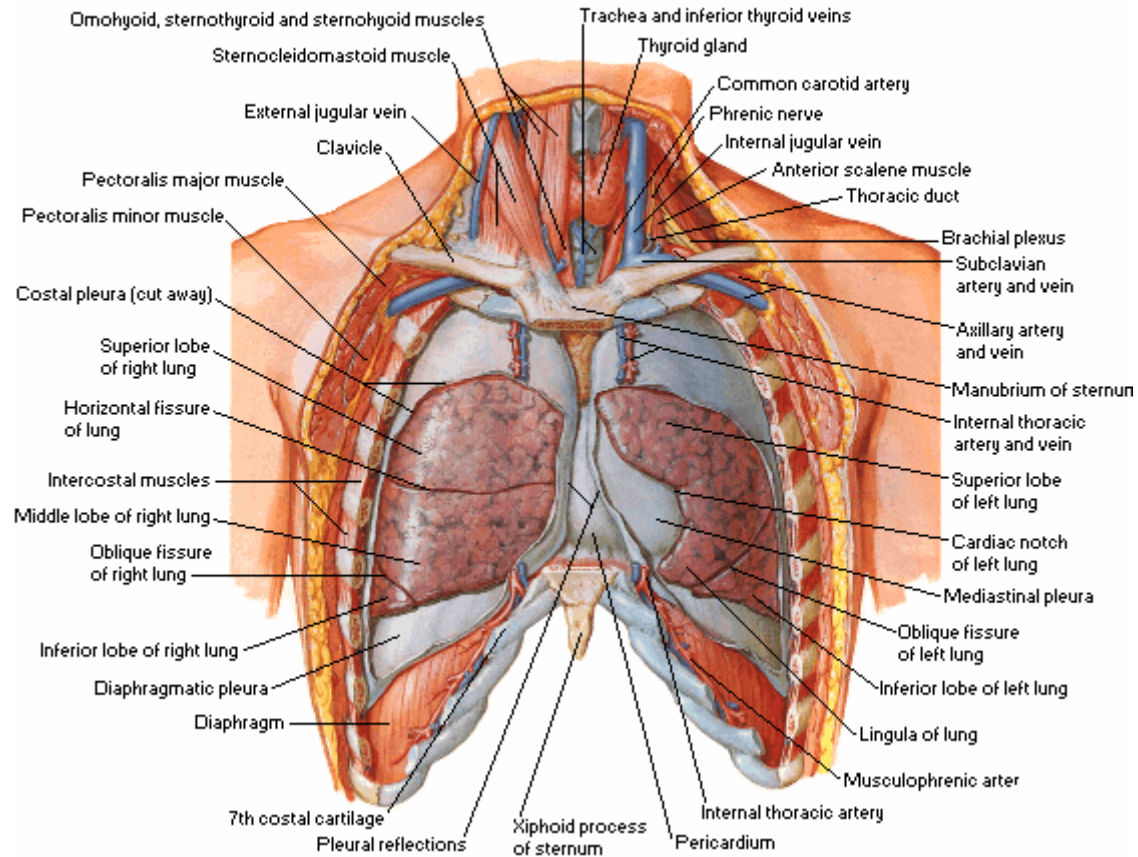
Anterior View



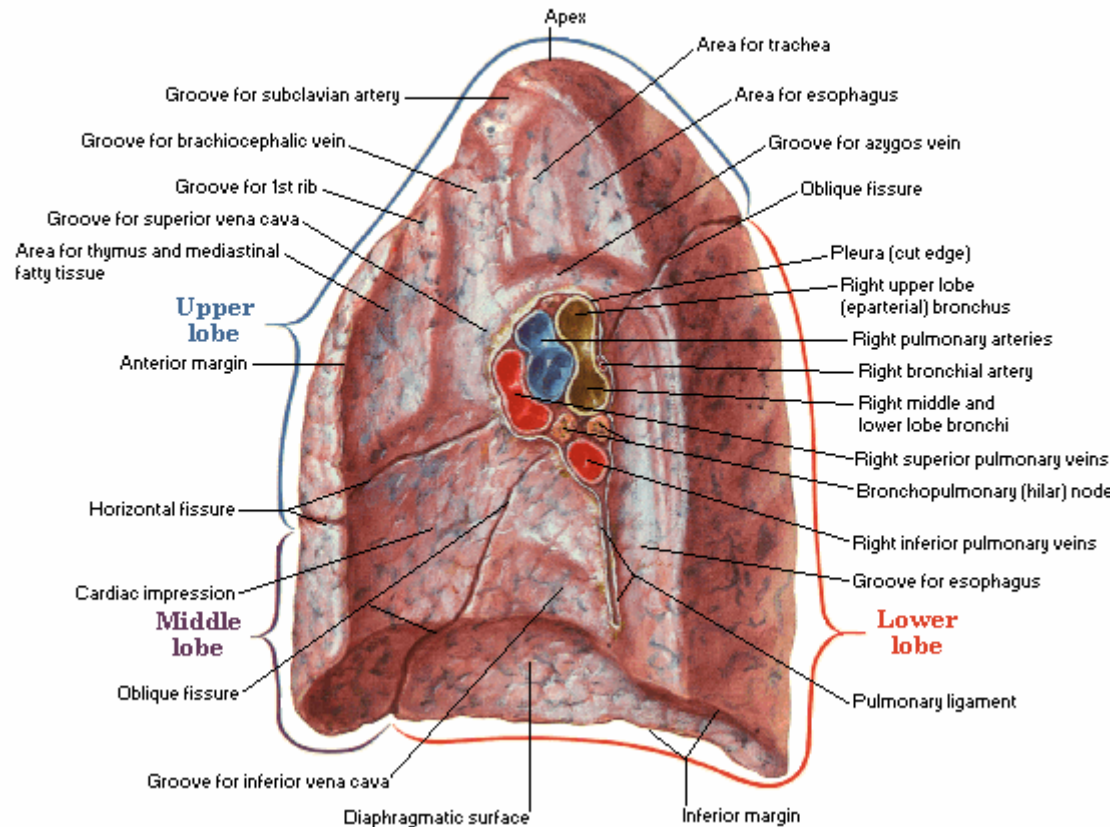
Posterior View



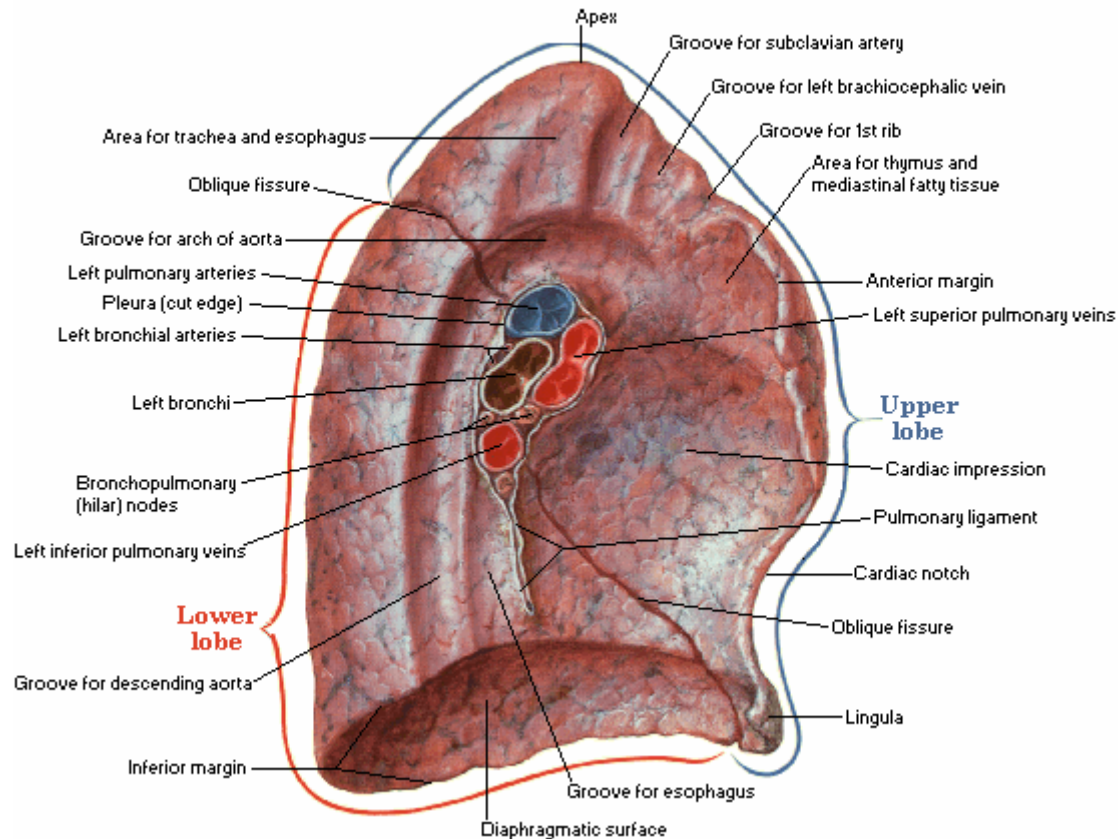
Anterior View



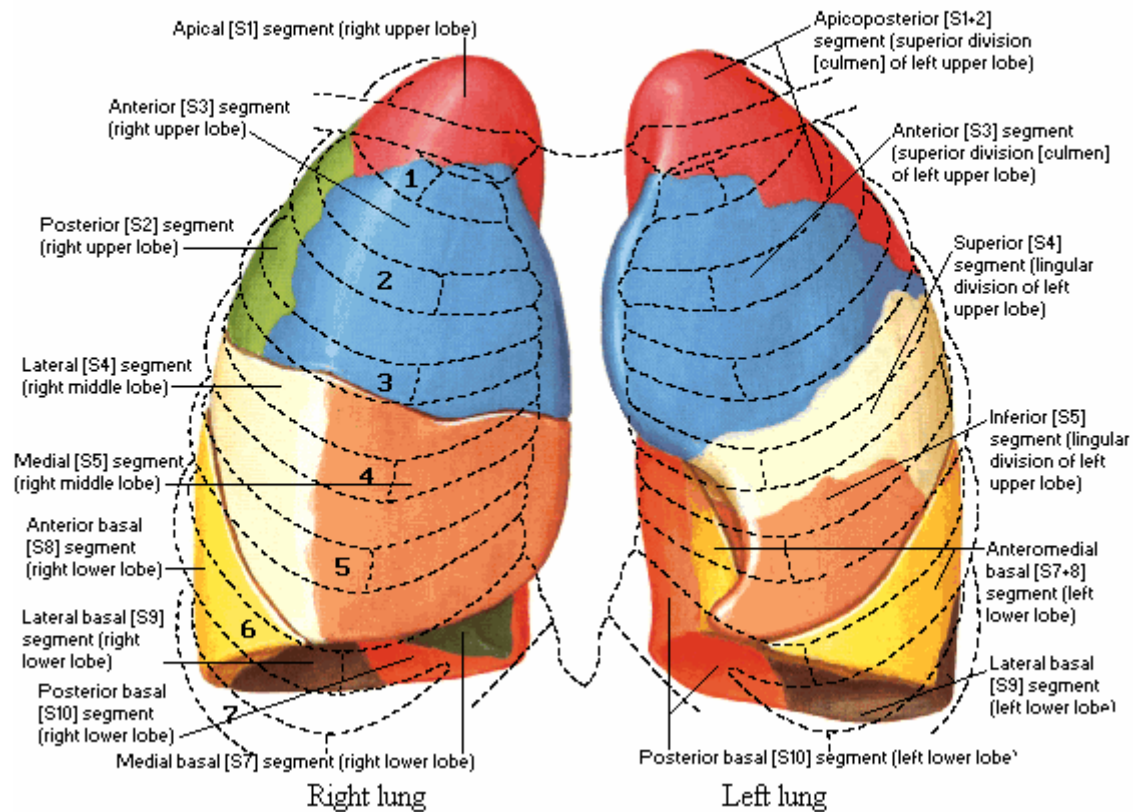
Medial View



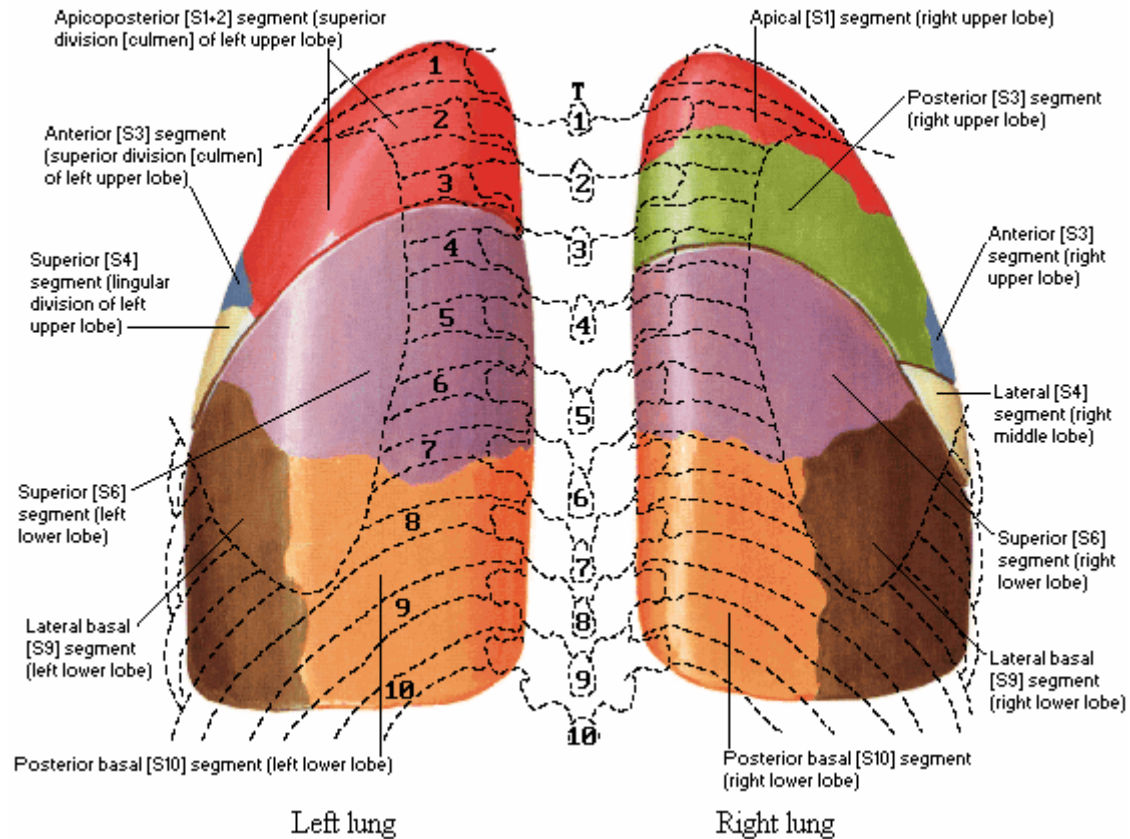
Medial View



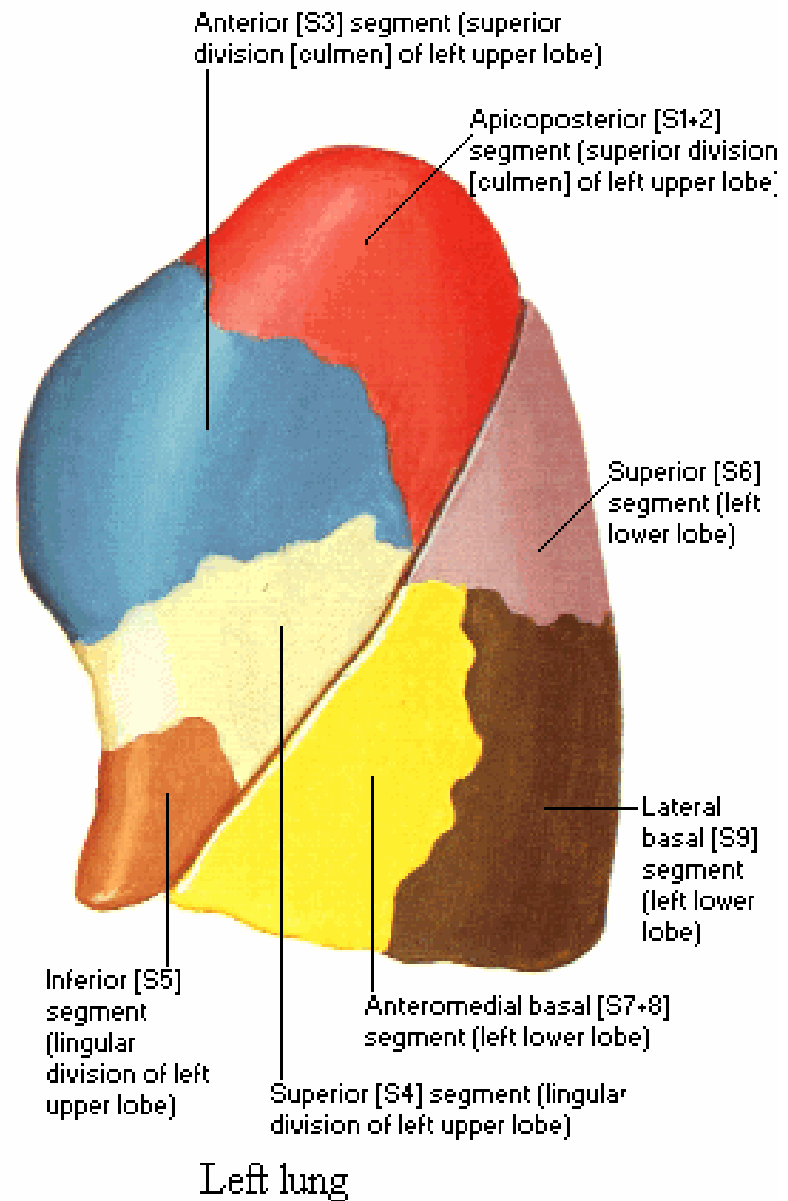
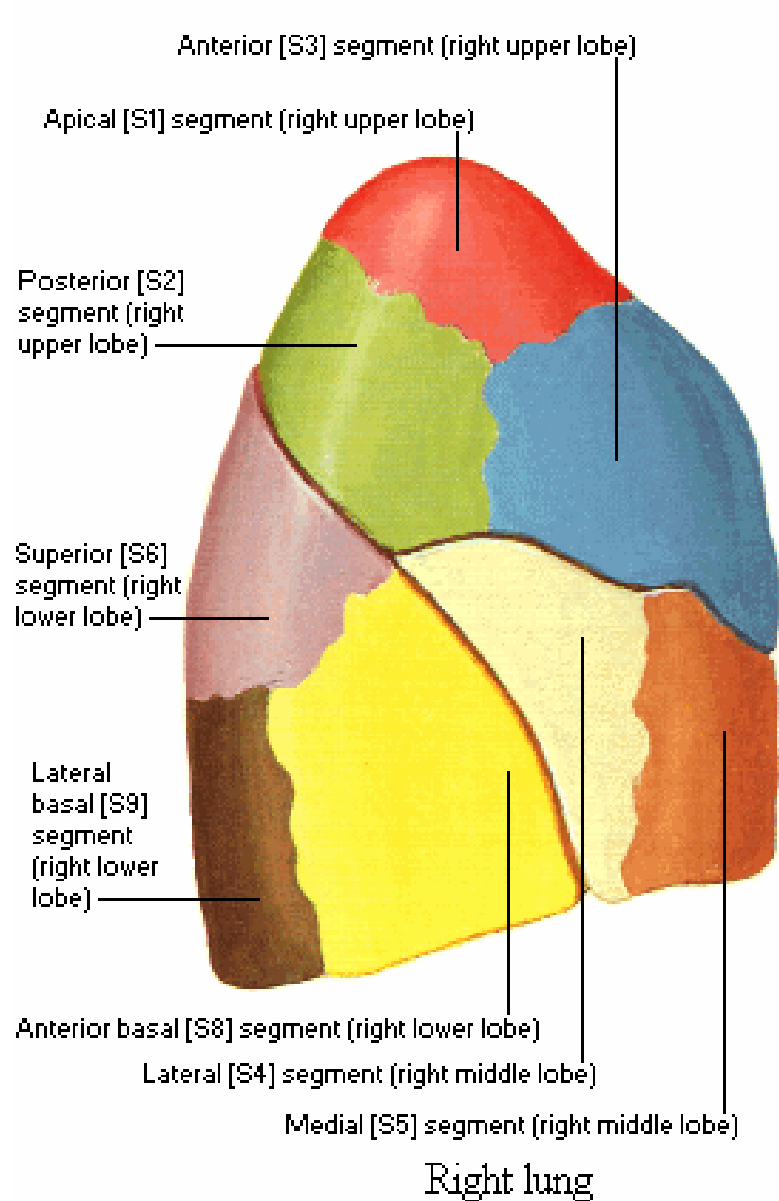
Anterior View



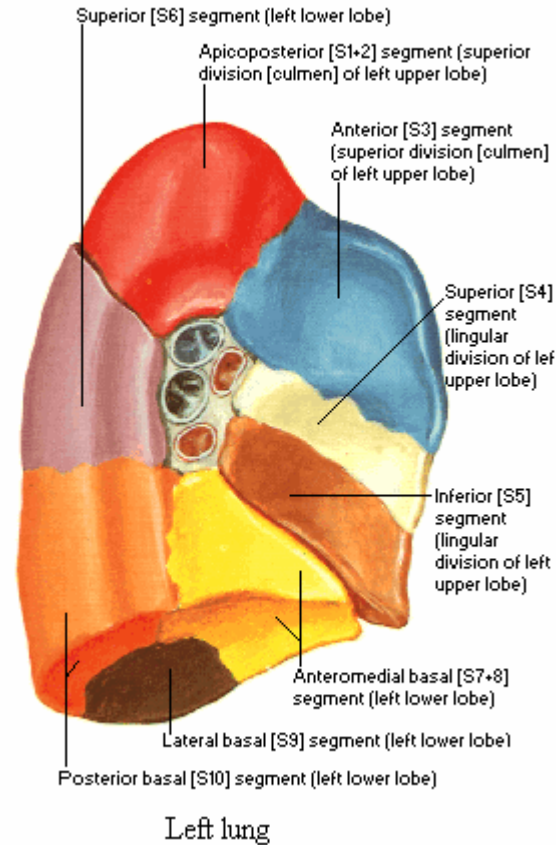
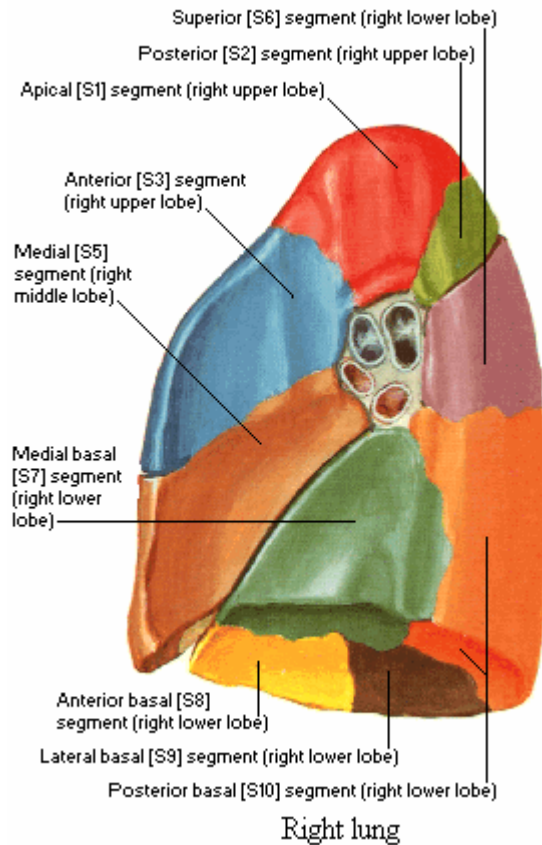
Posterior View



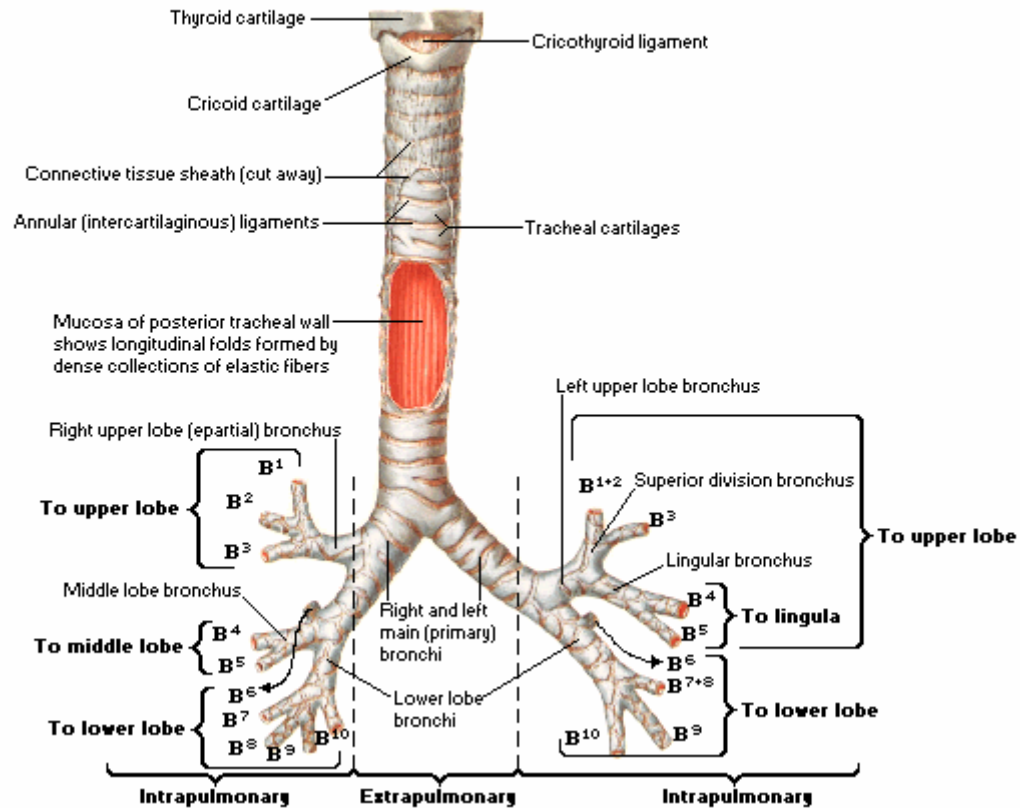
Lateral Views



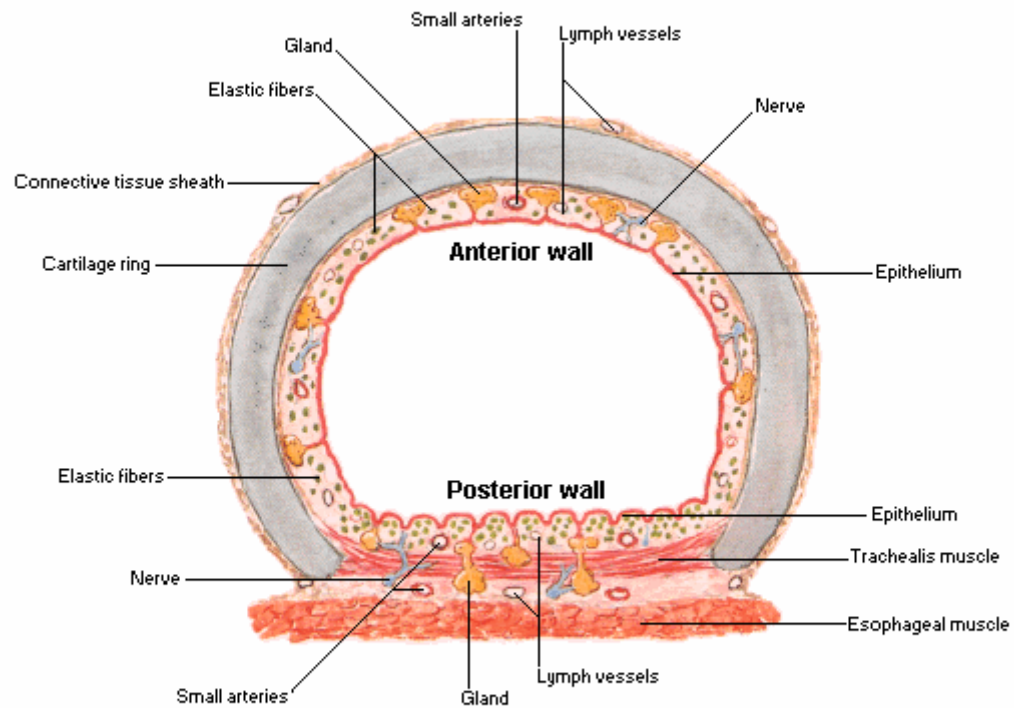
Medial Views



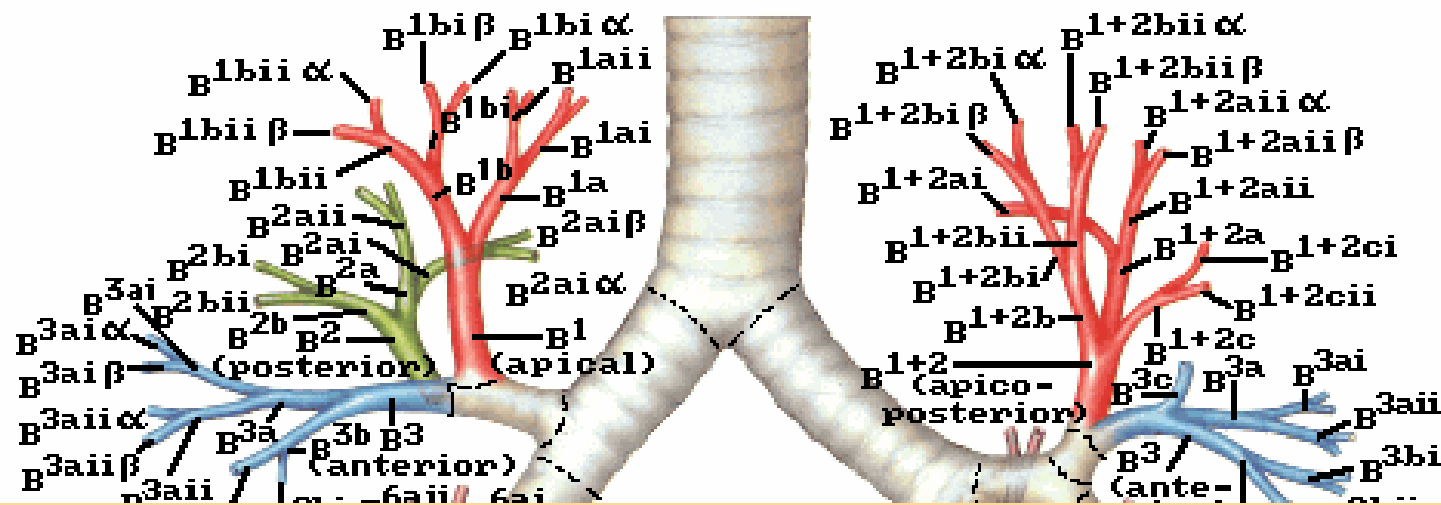
Anterior View



Cross Section



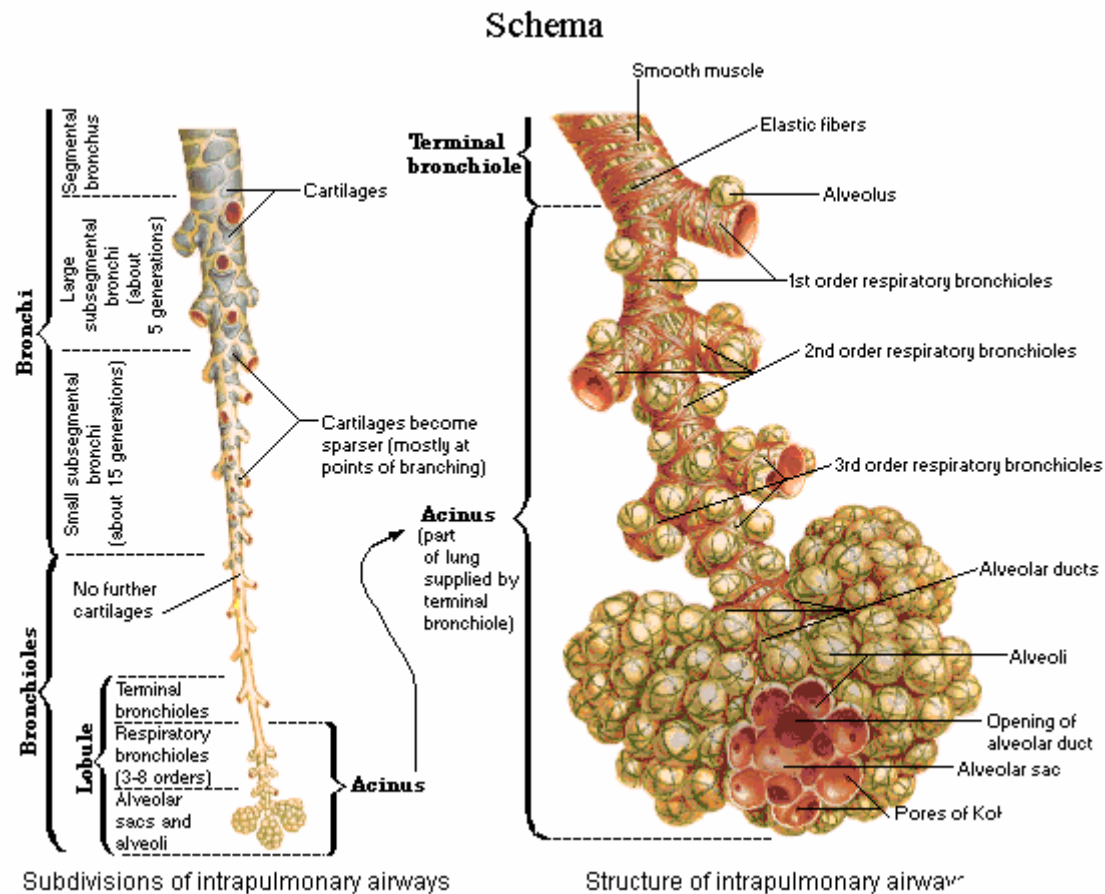
Schema



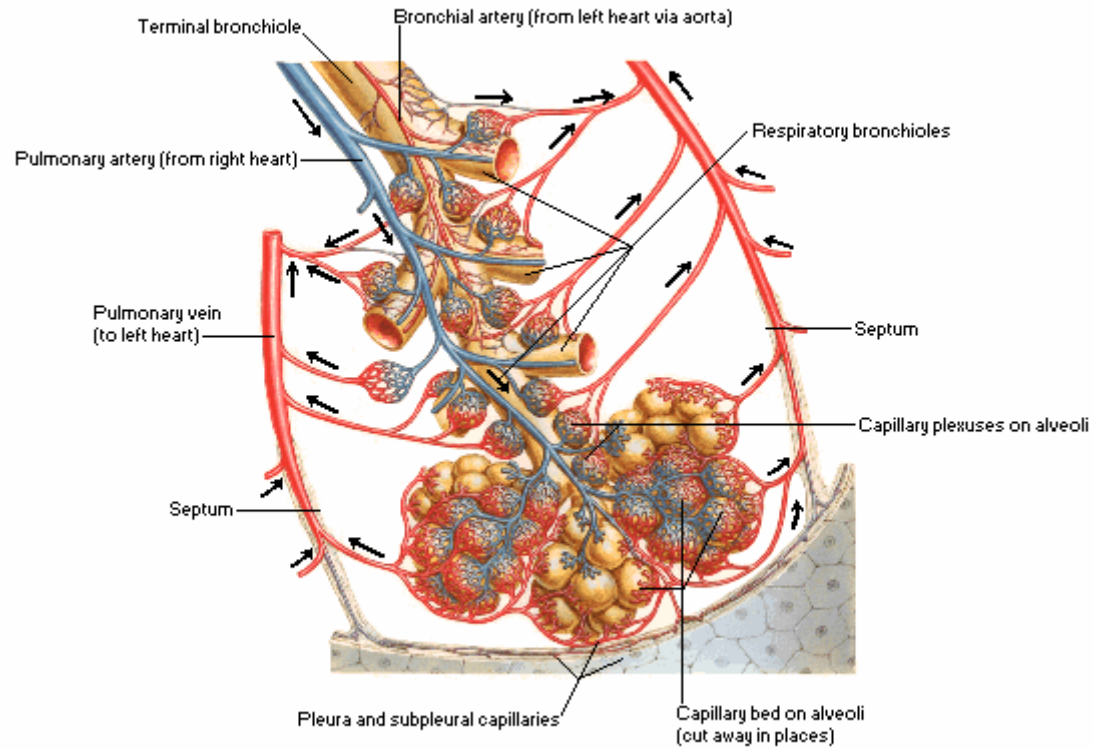
Nomenclature in common usage for bronchopulmonary segments (Plates 188 A & B and 189 A & B) is that of Jackson and Huber, and segmental bronchi are named accordingly. Ikeda proposed nomenclature (as demonstrated here) for bronchial subdivisions as far as 6th generation. For simplification in this illustration, only some bronchial subdivisions are labeled as far as 5th or 6th generation. Segmental bronchi (B) are numbered from 1 to 10 in each lung, corresponding to pulmonary segments. In left lung, B1 and B2 are combined as are B7 and B8. Subsegmental, or 4th order, bronchi are indicated by addition of lower case letters a, b, or c when an additional branch is present. Fifth order bronchi are designated by Roman numeral i (anterior) or ii (posterior), and 6th order bronchi by Greek letters α and β . Several texts use alternate numbers (as proposed by Boyden) for segmental bronchi.

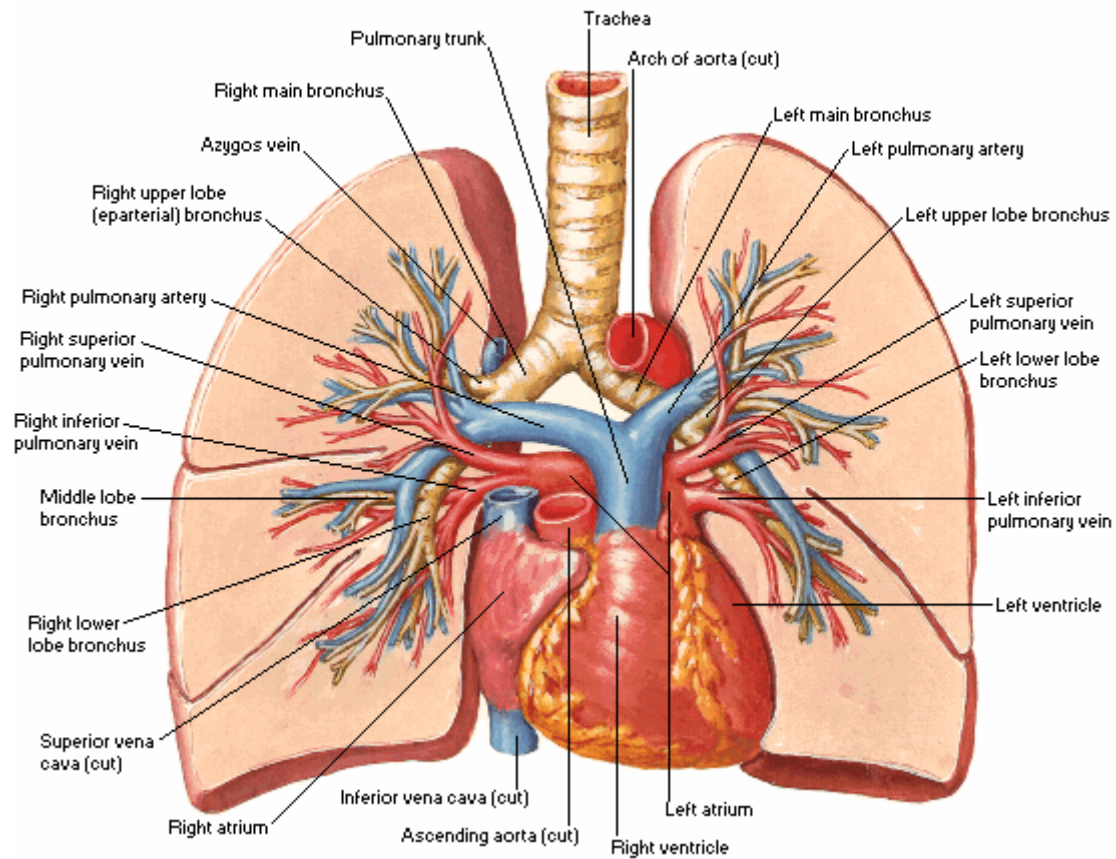
Variations of standard bronchial pattern shown here are common, especially in peripheral airways.

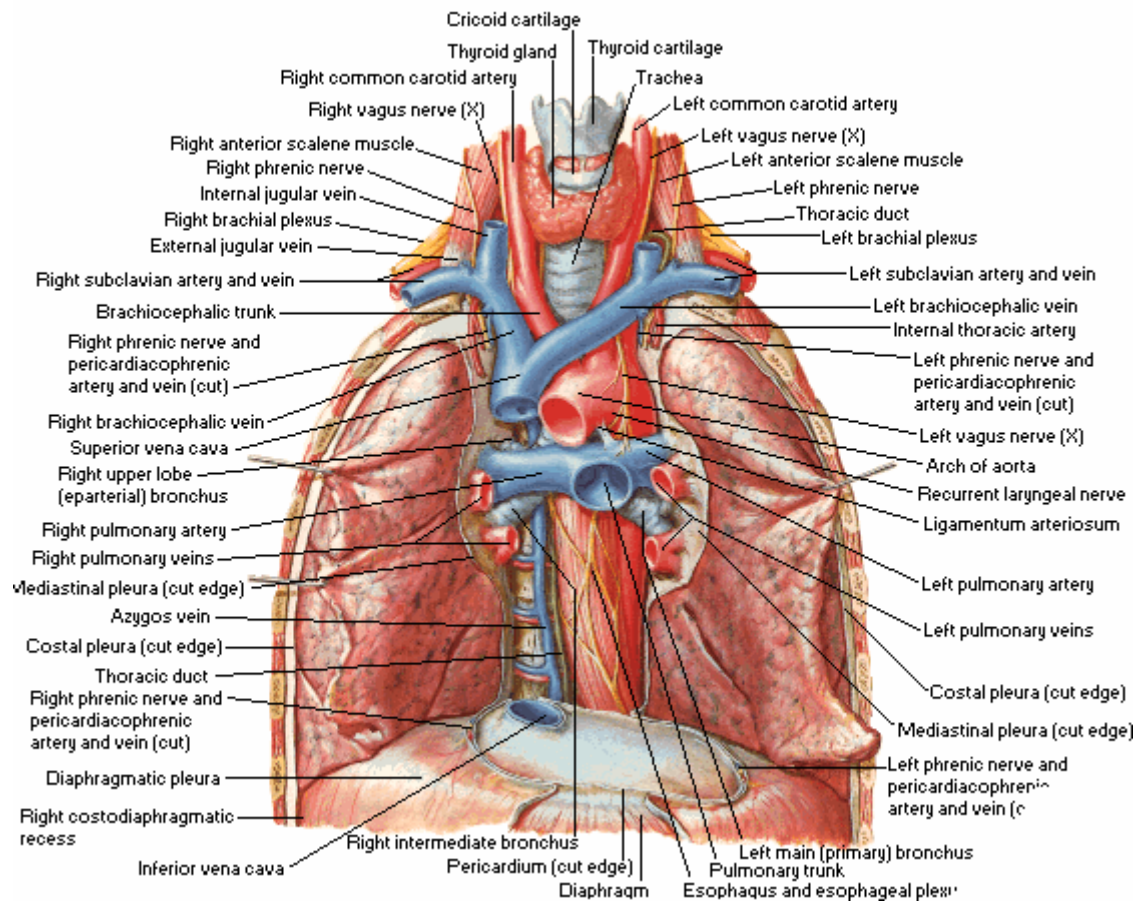


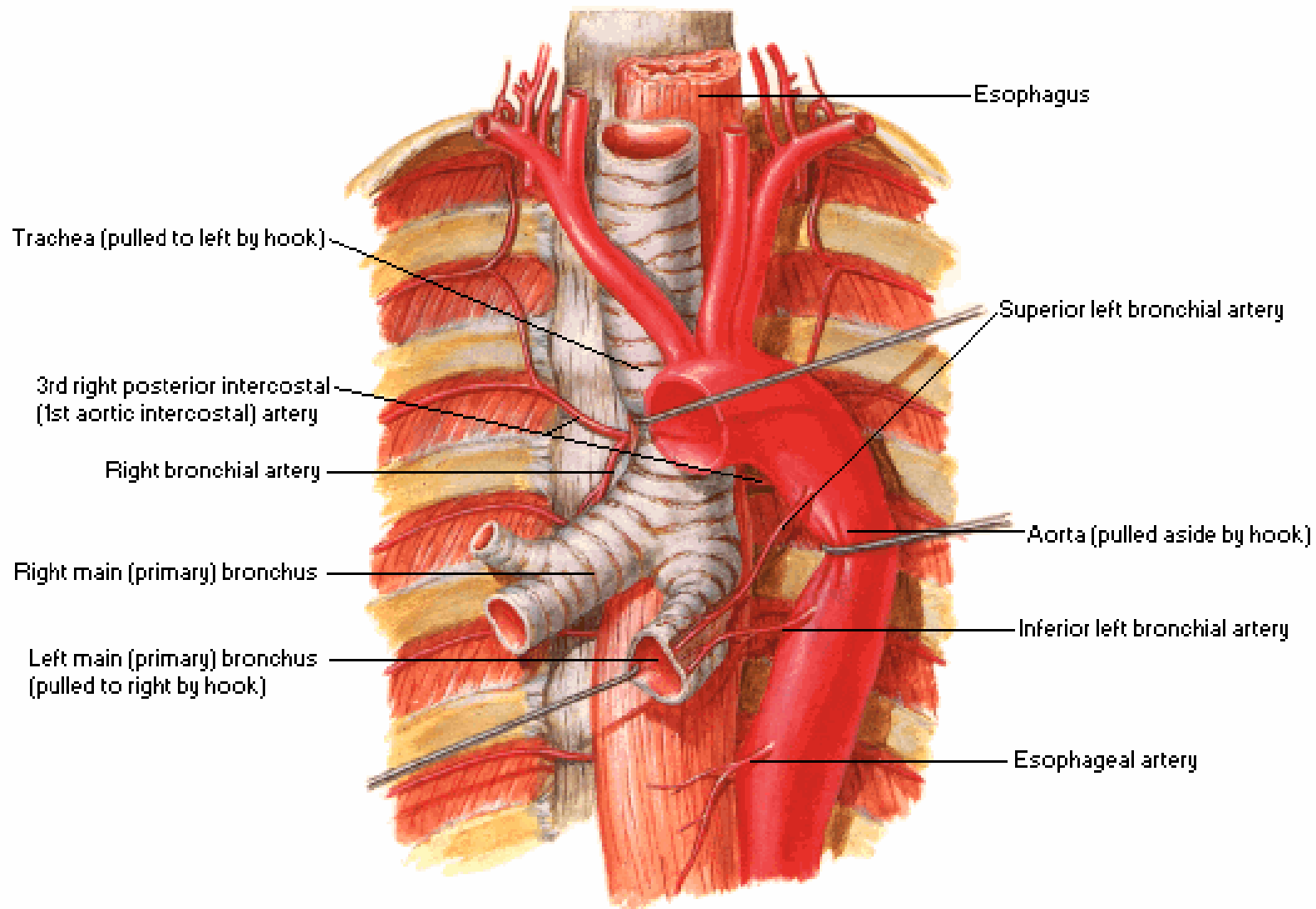


Schema

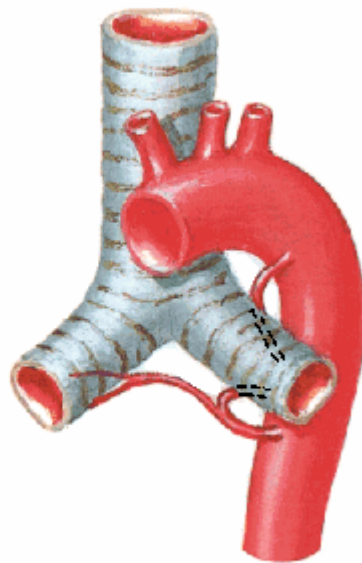




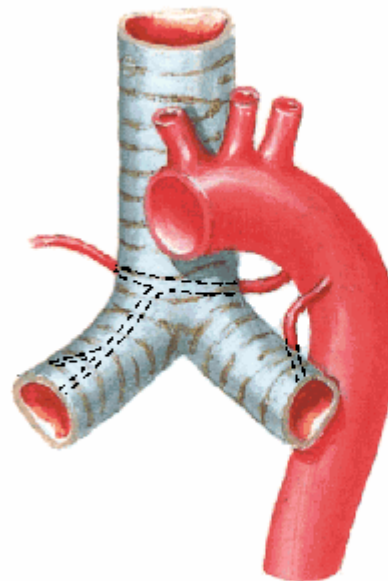




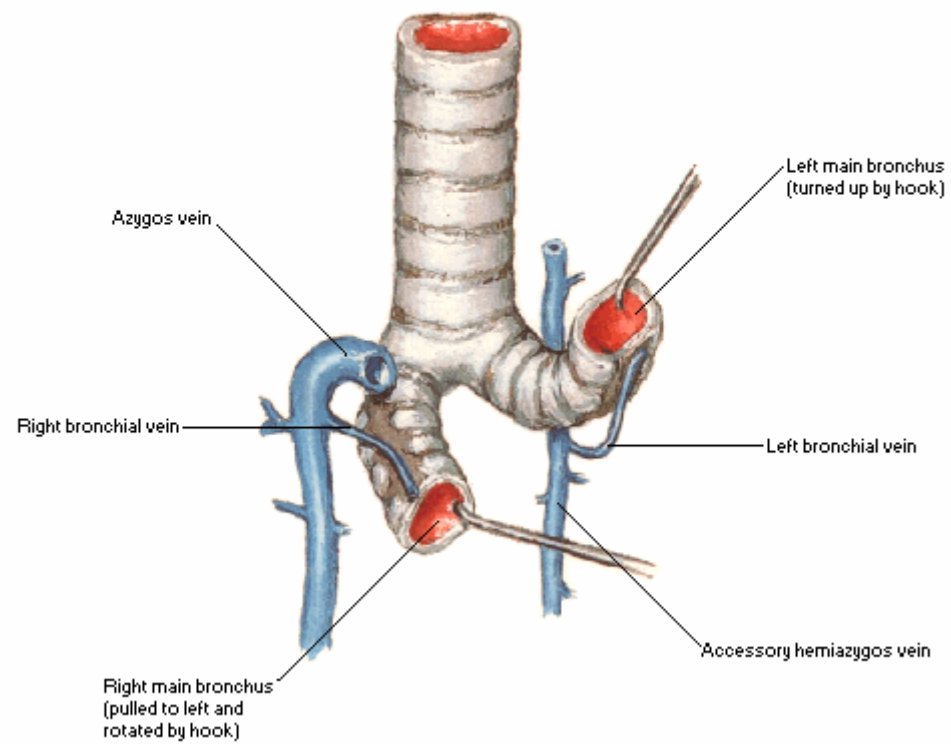
Variations

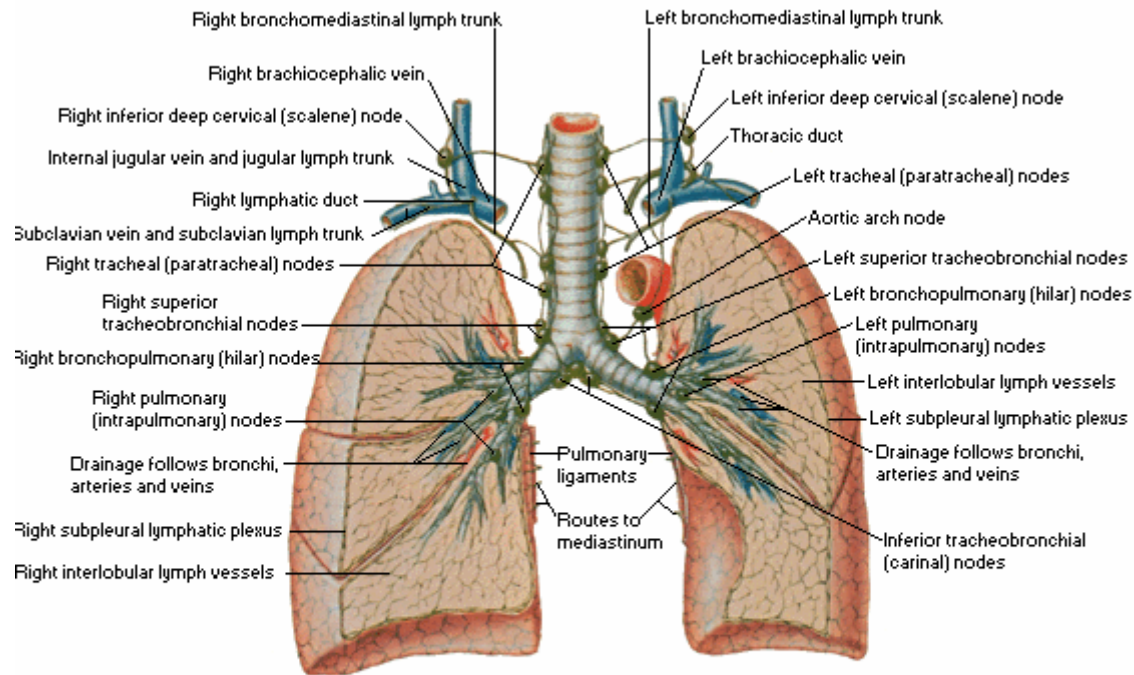


Right and left bronchial arteries originating from aorta by single stem



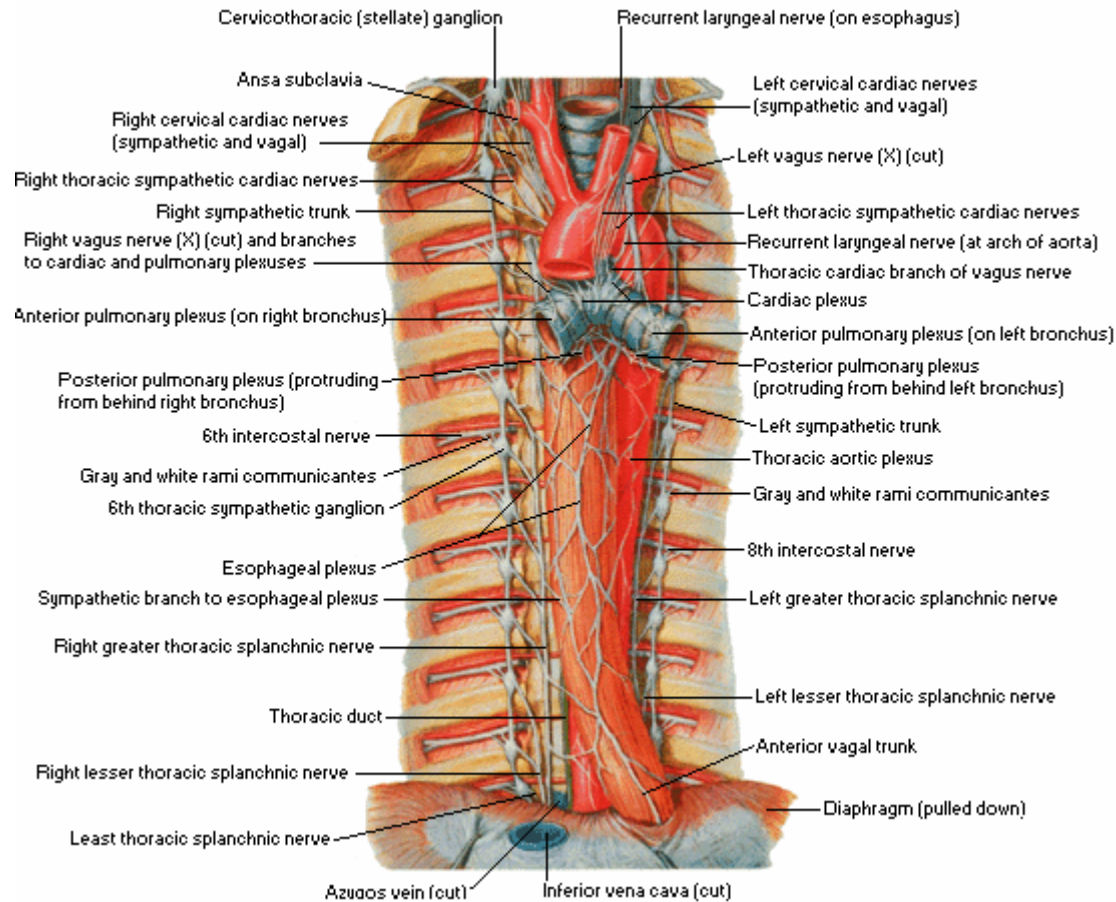
Only single bronchial artery to each bronchus (normally, two to left bronchus)



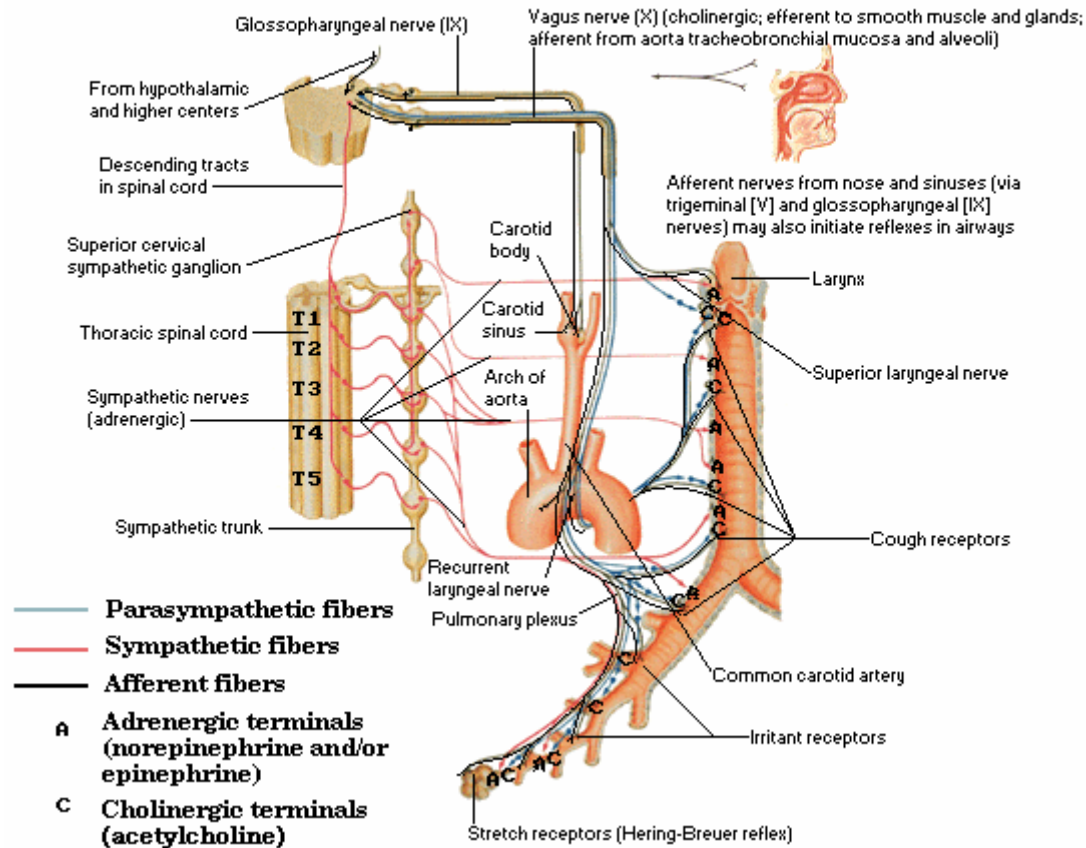


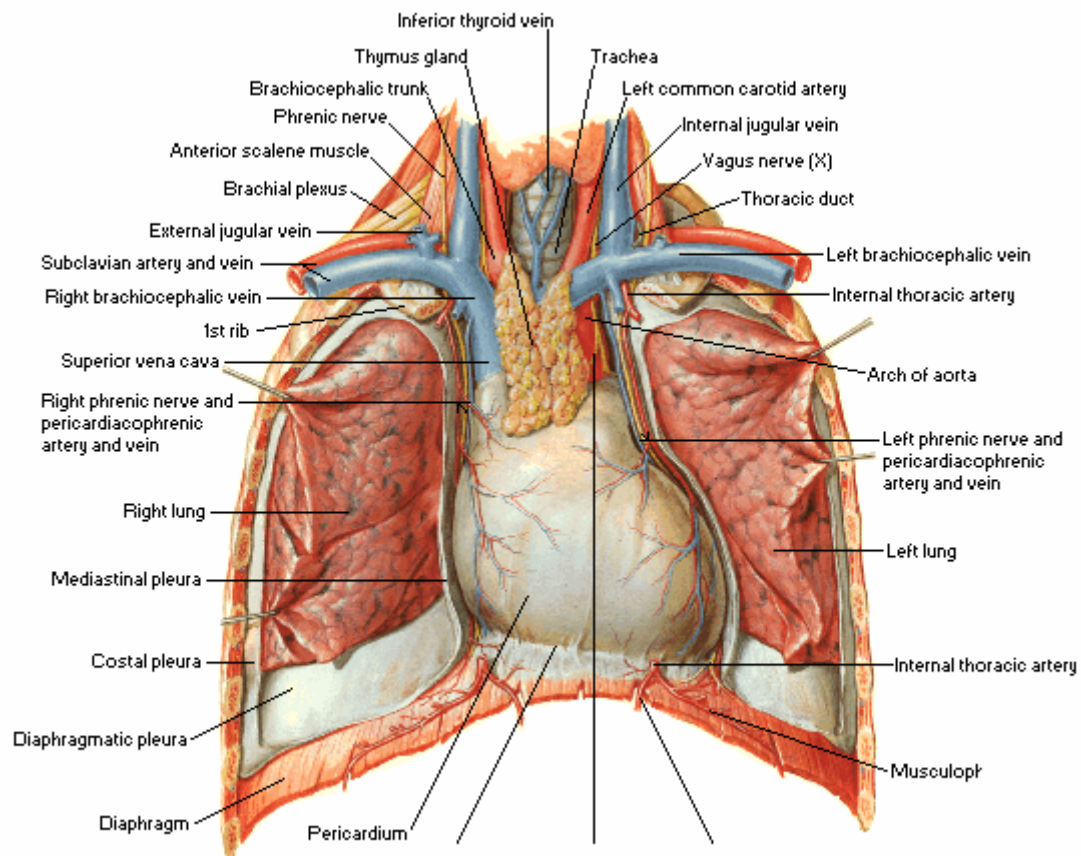
Right lung: All lobes drain to intrapulmonary and bronchopulmonary (hilar) nodes, then to inferior tracheobronchial (carinal) nodes, right superior tracheobronchial nodes and to right tracheal nodes on way to brachiocephalic vein via bronchomediastinal lymph trunk and/or scalene node.

Left lung: Upper lobe drains to pulmonary and hilar nodes, carinal nodes, left superior tracheobronchial nodes, left tracheal nodes and/or aortic arch node, then to brachiocephalic vein via left bronchomediastinal trunk and thoracic duct. Left lower lobe drains also to pulmonary and hilar nodes and to carinal nodes, but then mostly to right superior tracheobronchial nodes, where it follows same route as lymph from right lung.

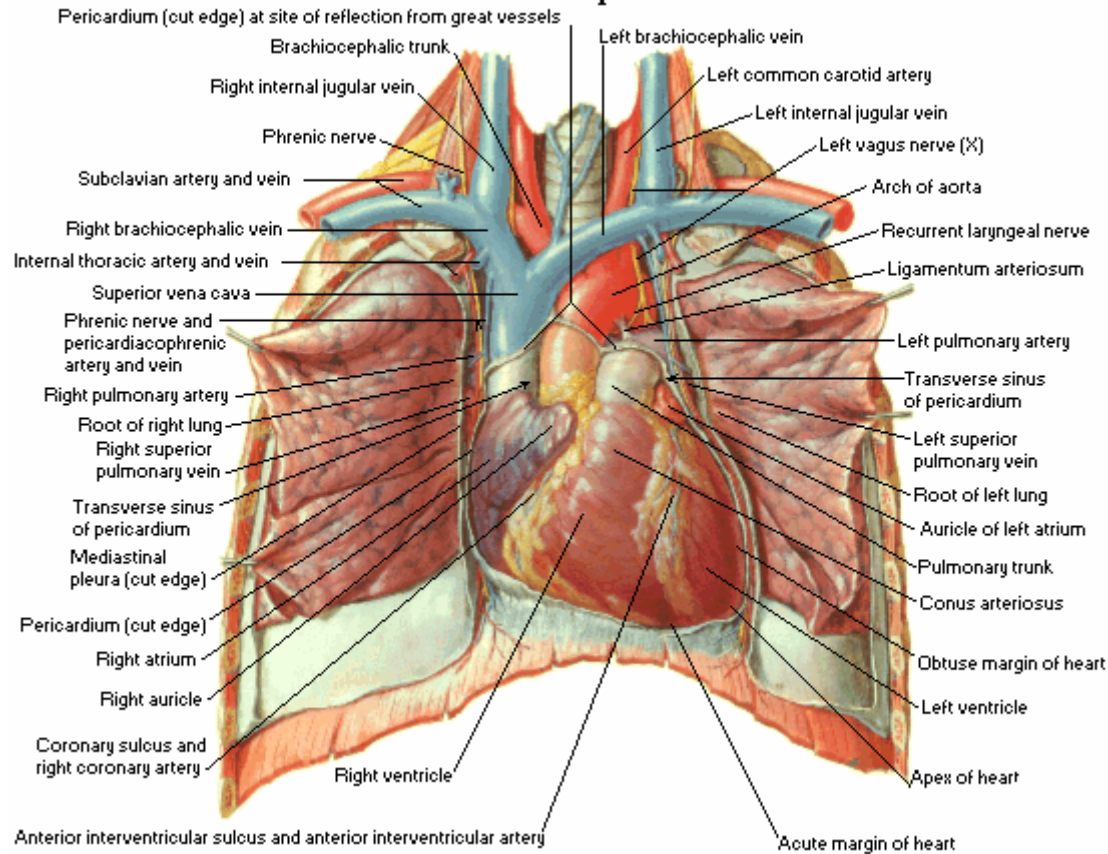


Schema

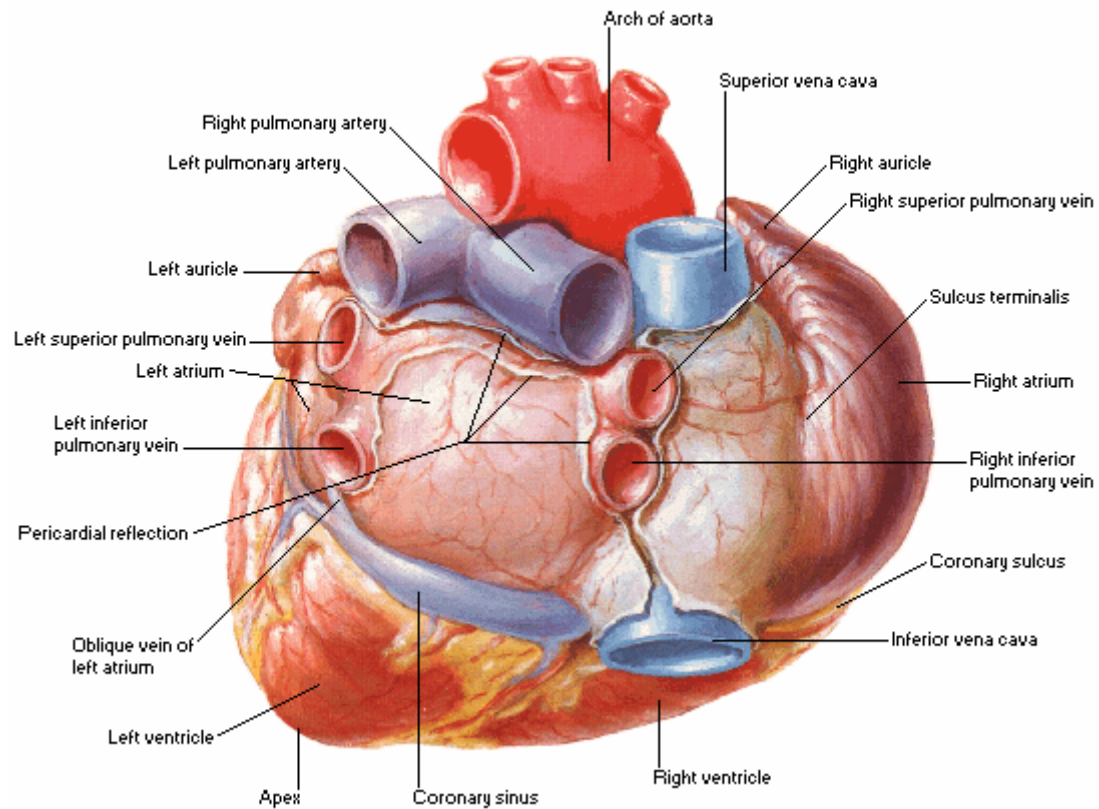




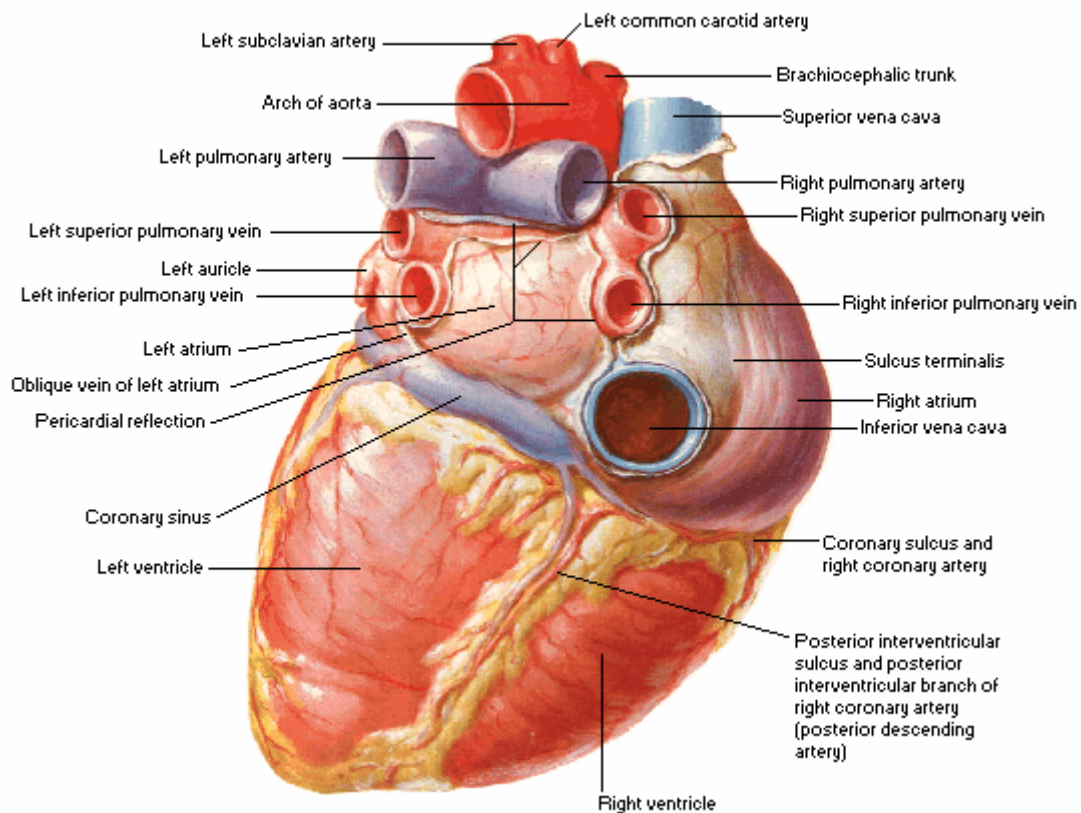
Anterior Exposure



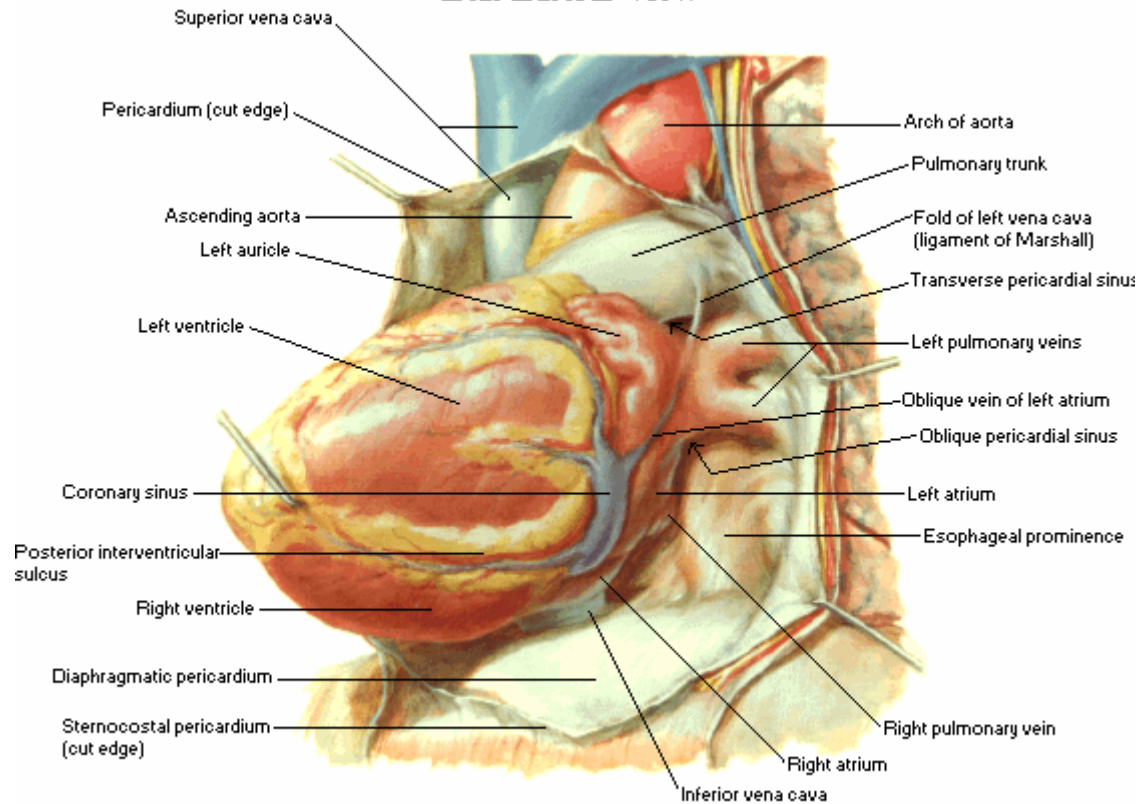
Posterior View



Posteroinferior View

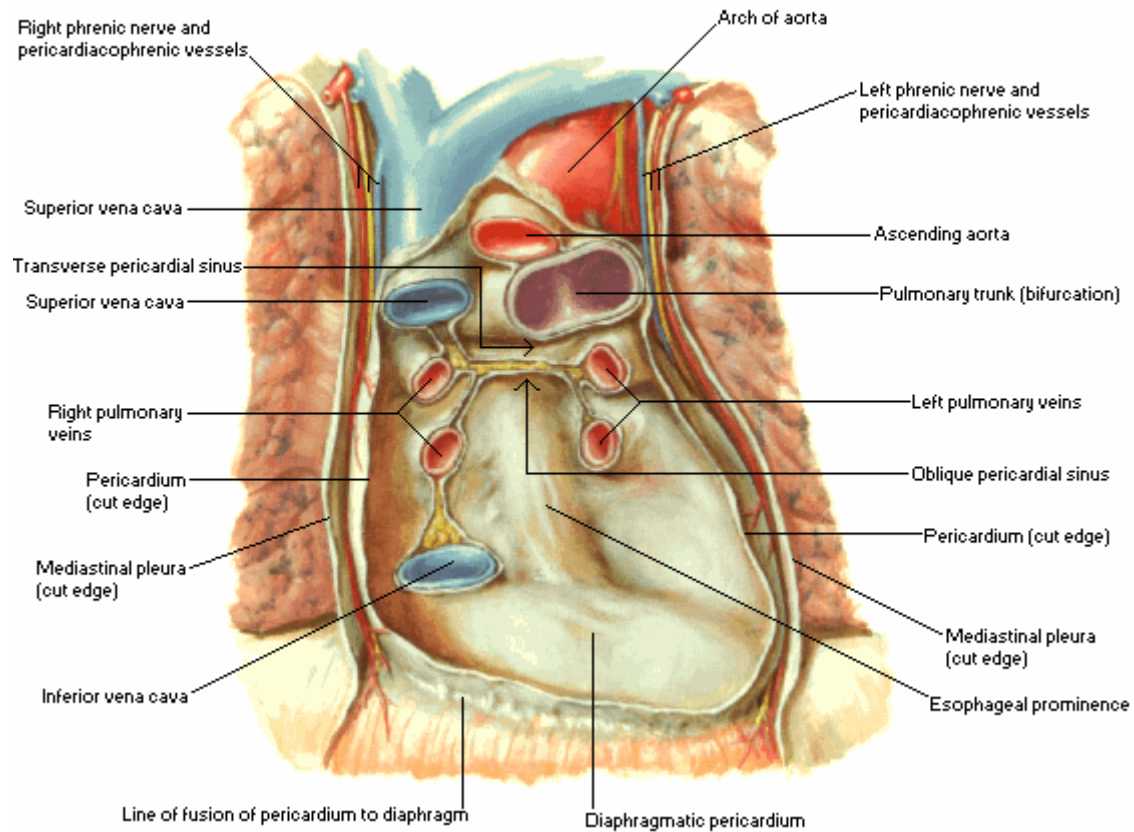


Left Lateral View

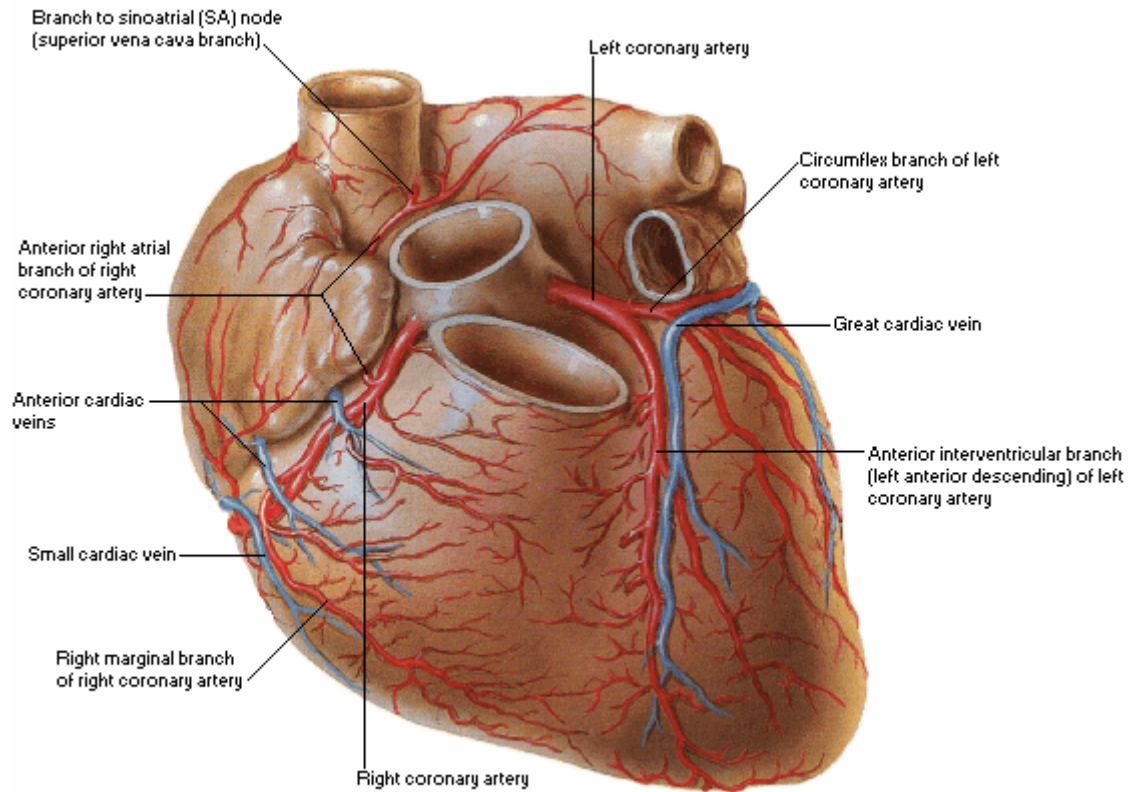


Heart drawn out of opened pericardial sac

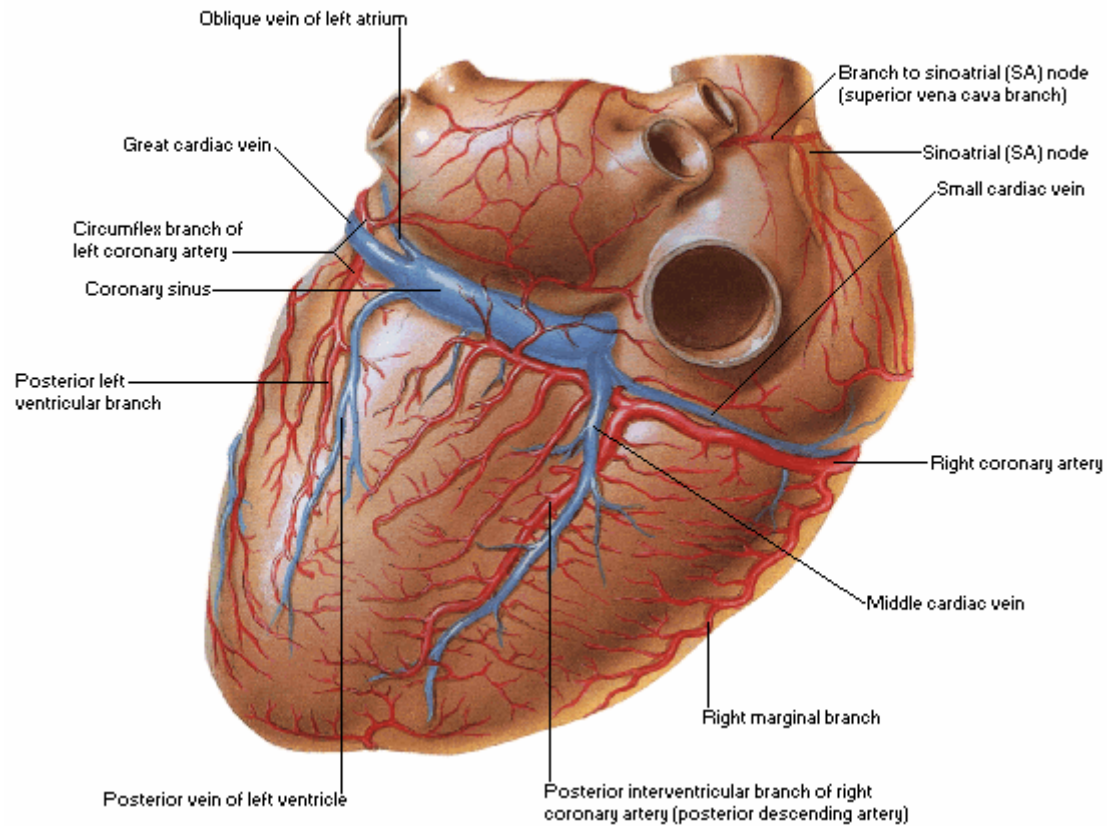
Anterior View



Sternocostal Surface

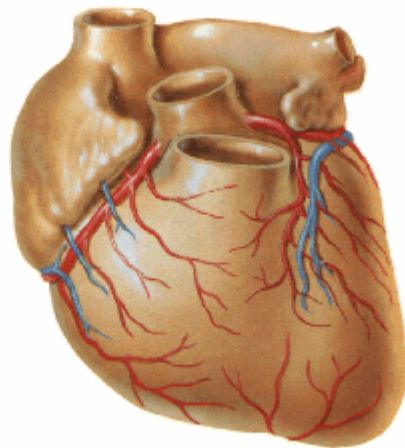


Diaphragmatic Surface

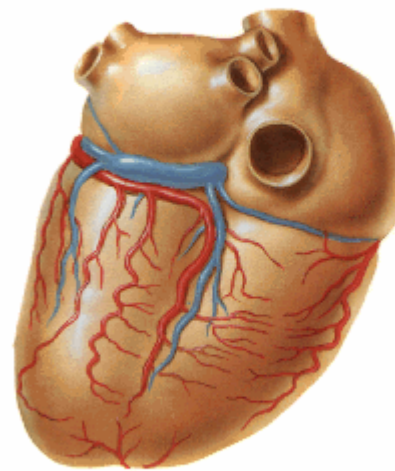


Variations 1

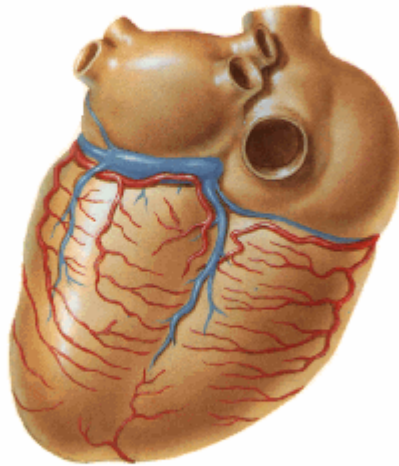
Posterior interventricular (posterior descending) branch derived from circumflex branch of left coronary artery instead of from right coronary artery.



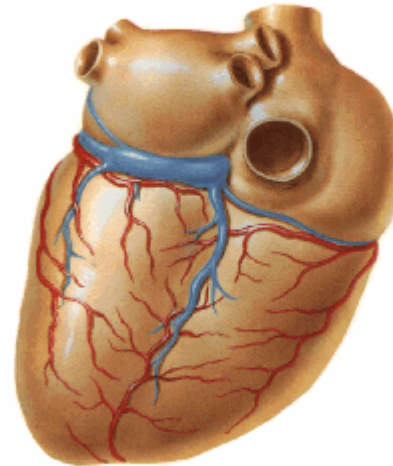
Anterior interventricular (left anterior descending) branch of left coronary artery very short. Apical part of sternocostal surface supplied by branches from posterior interventricular (posterior descending) branch of right coronary artery curving around apex.



Variations 2

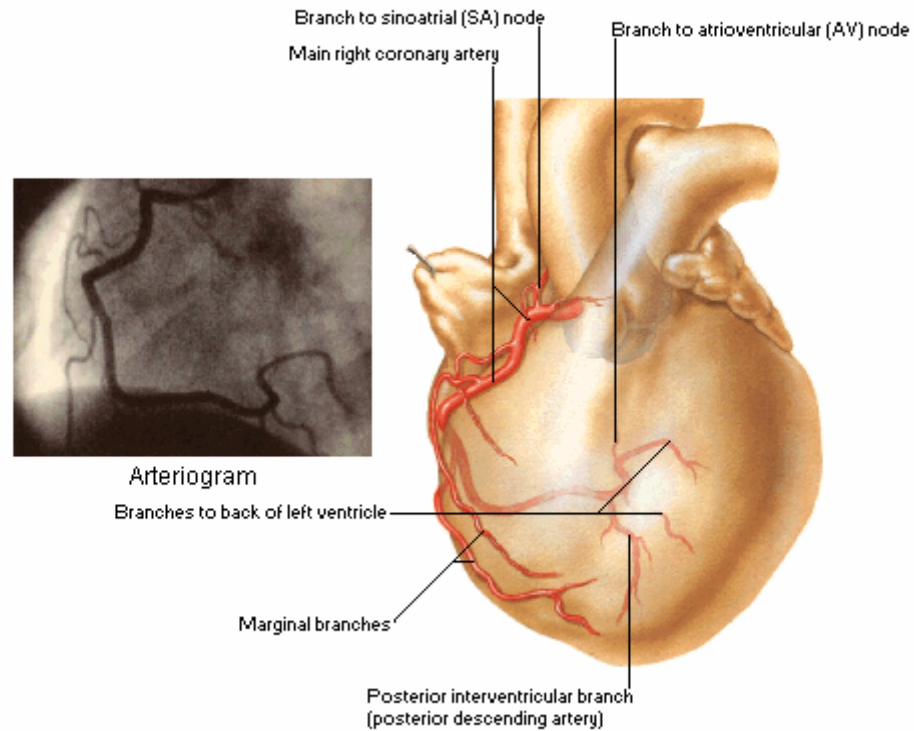


Posterior interventricular (posterior descending) branch absent. Area supplied chiefly by small branches from circumflex branch of left coronary artery and from right coronary artery.



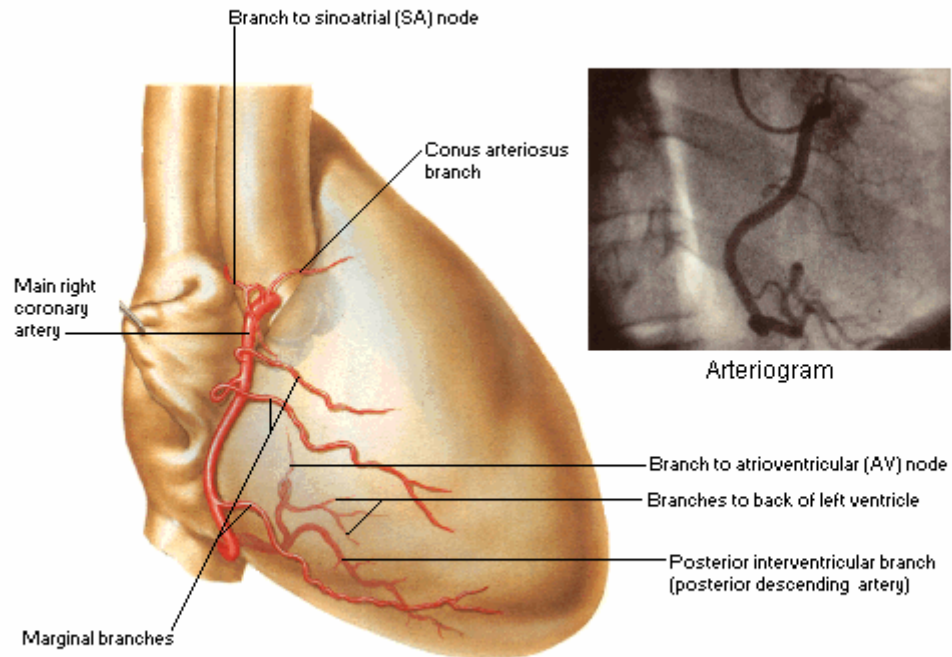
Posterior interventricular (posterior descending) branch absent. Area supplied chiefly by elongated anterior interventricular (left anterior descending) branch curving around apex.

Arteriographic View 1



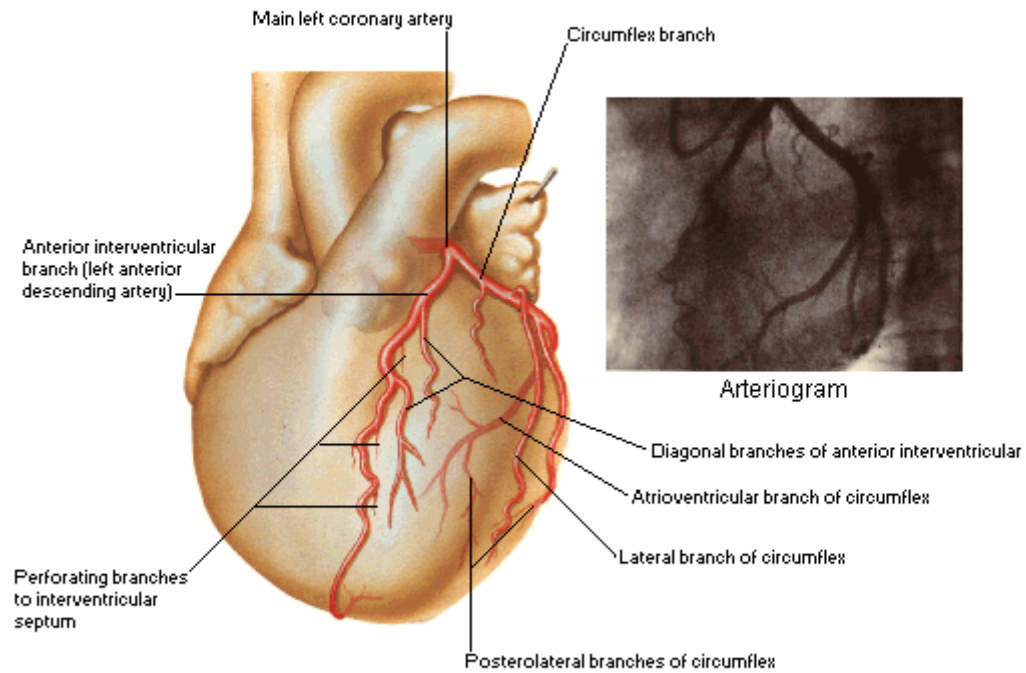
Left anterior oblique view

Arteriographic View 2



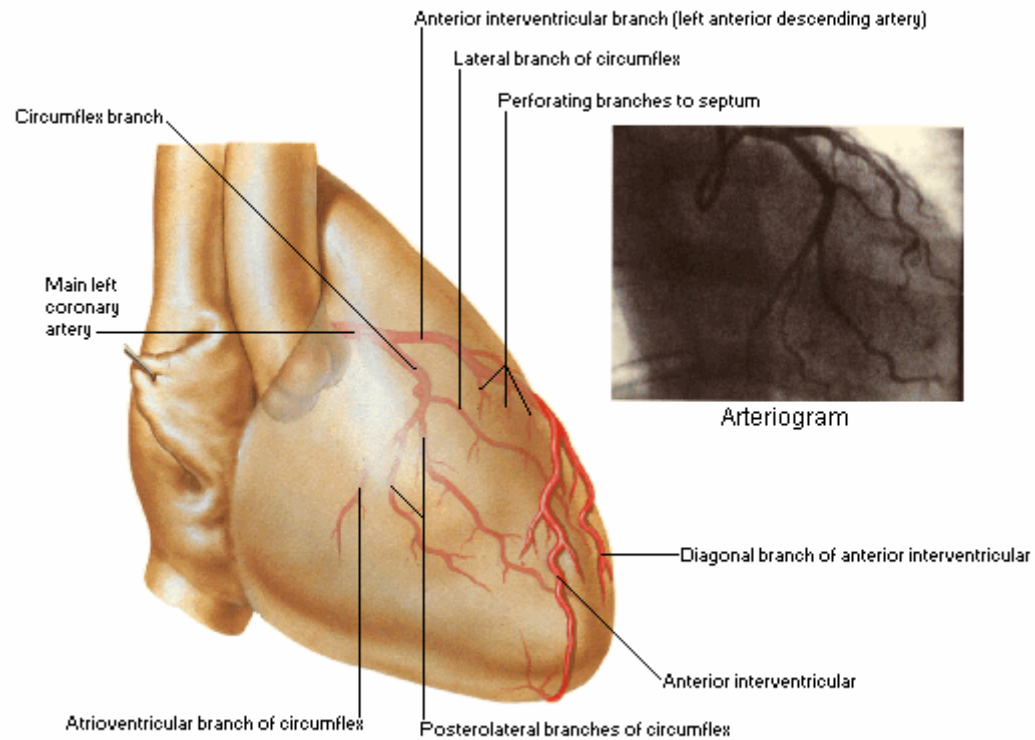
Right anterior oblique view

Arteriographic View 1



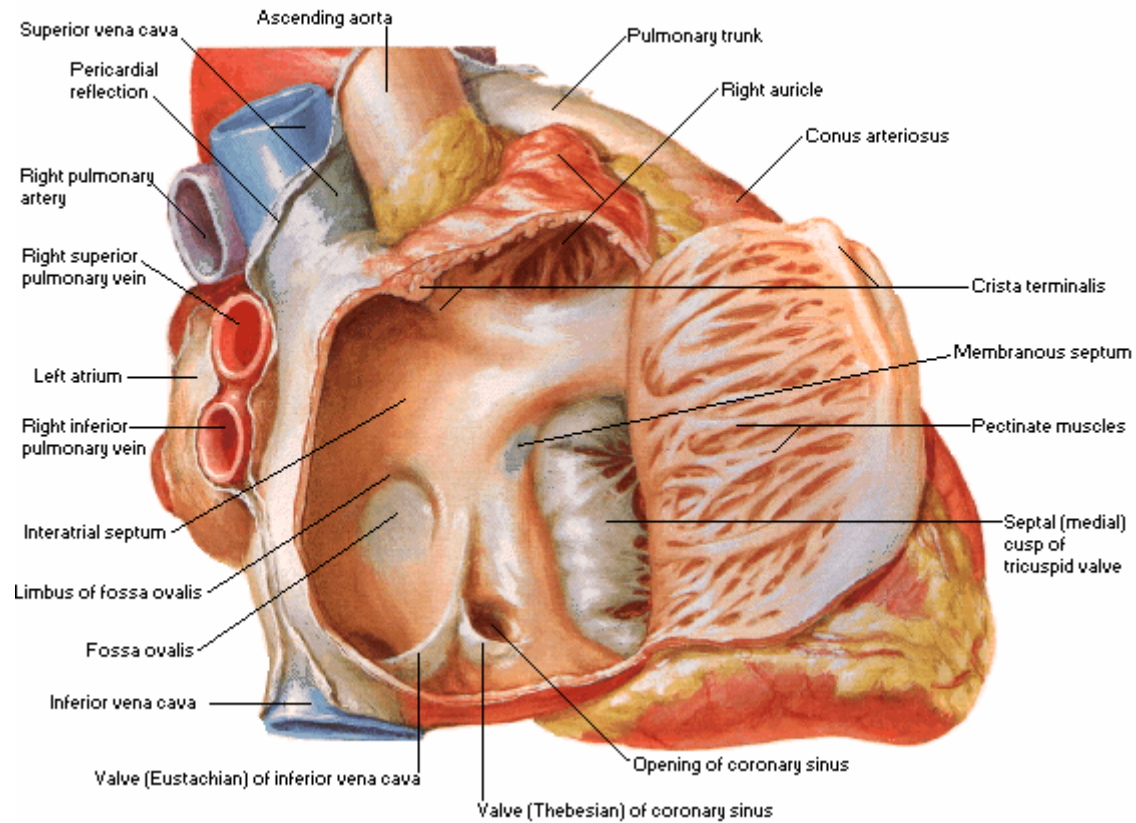
Left anterior oblique view

Arteriographic View 2

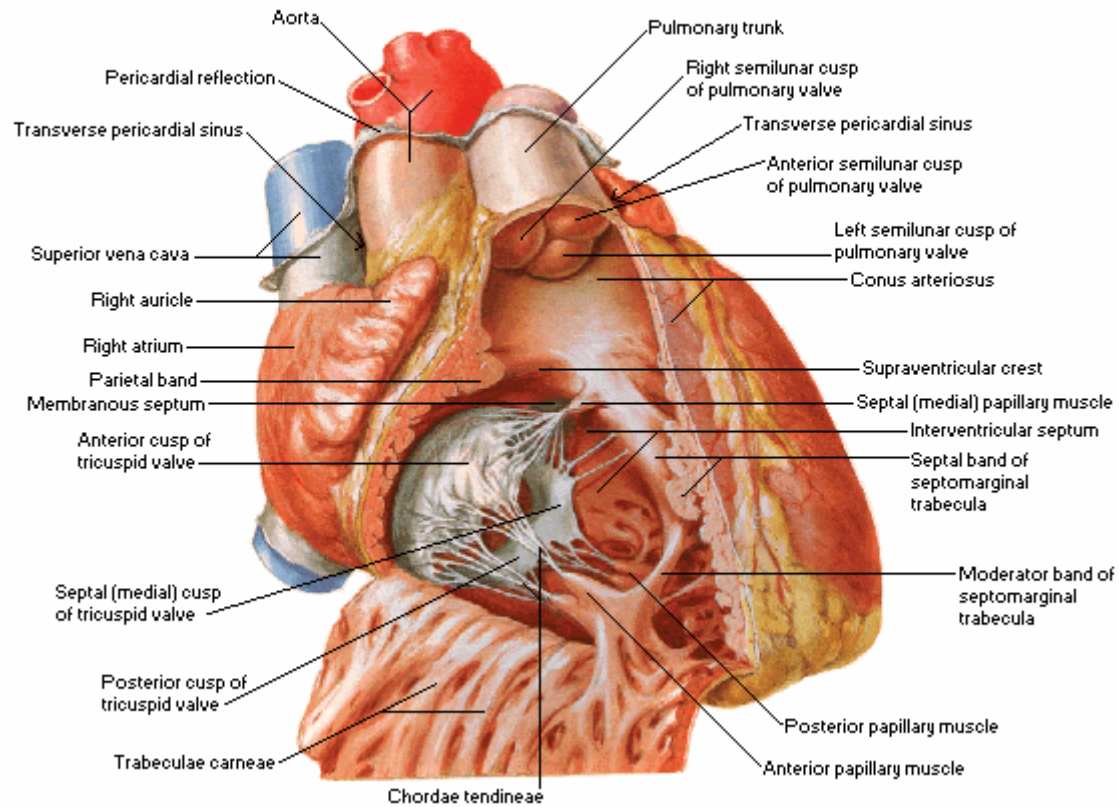


Right anterior oblique view

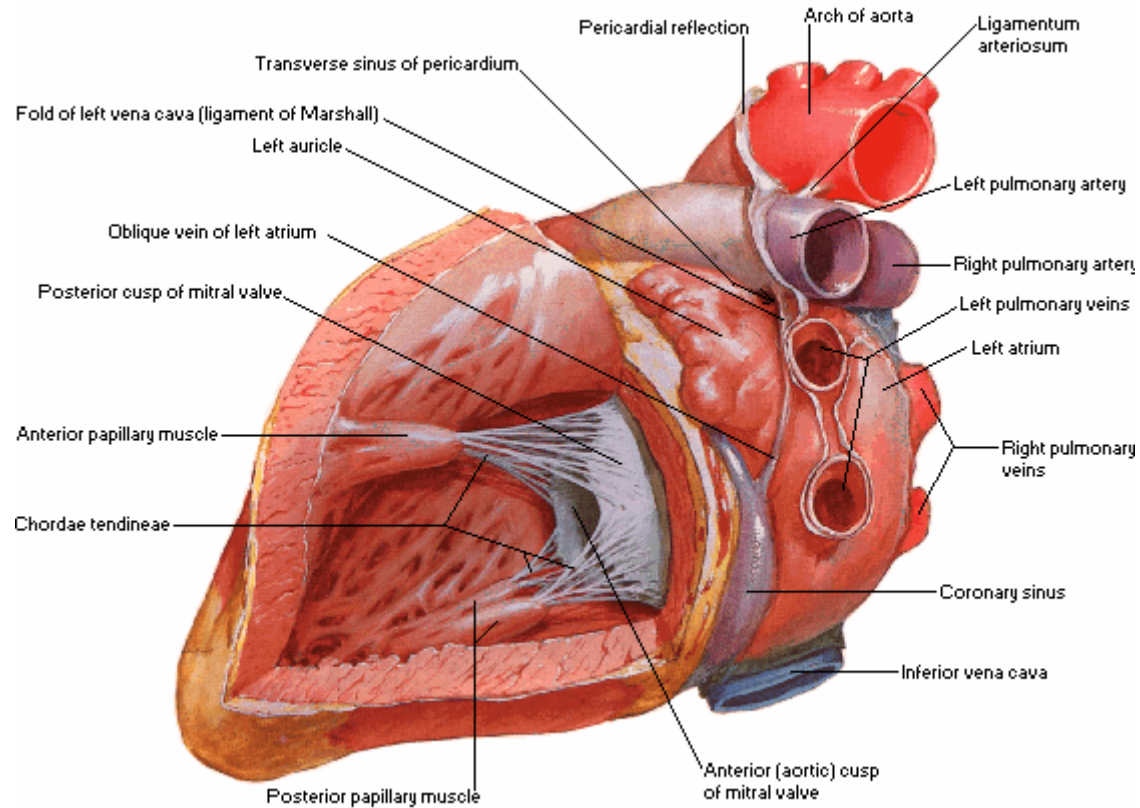
Right Lateral View



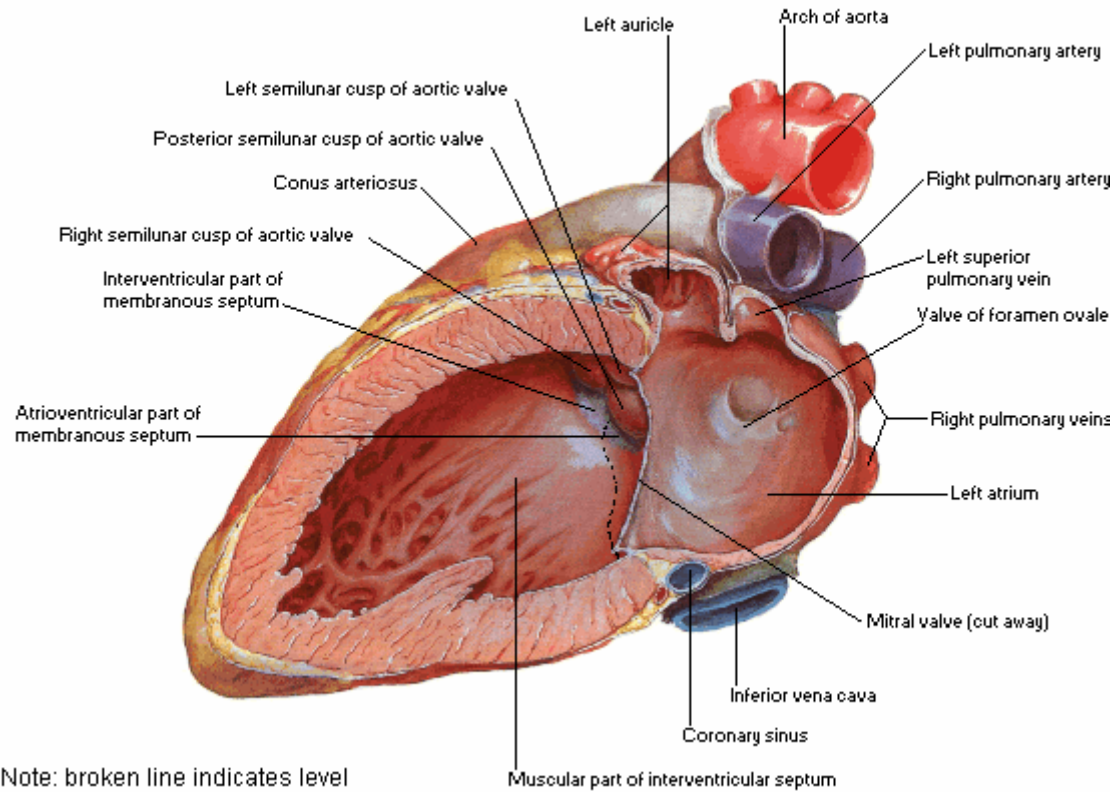
Anterior View

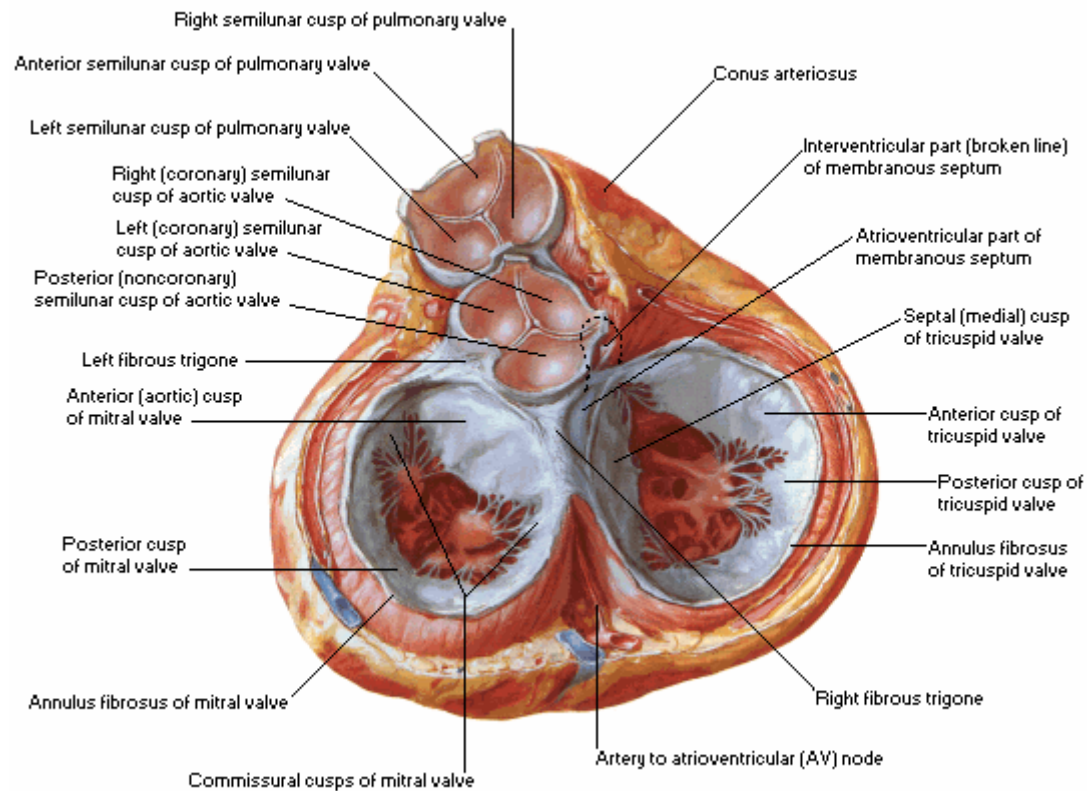


Flap Opened in Posterolateral Wall

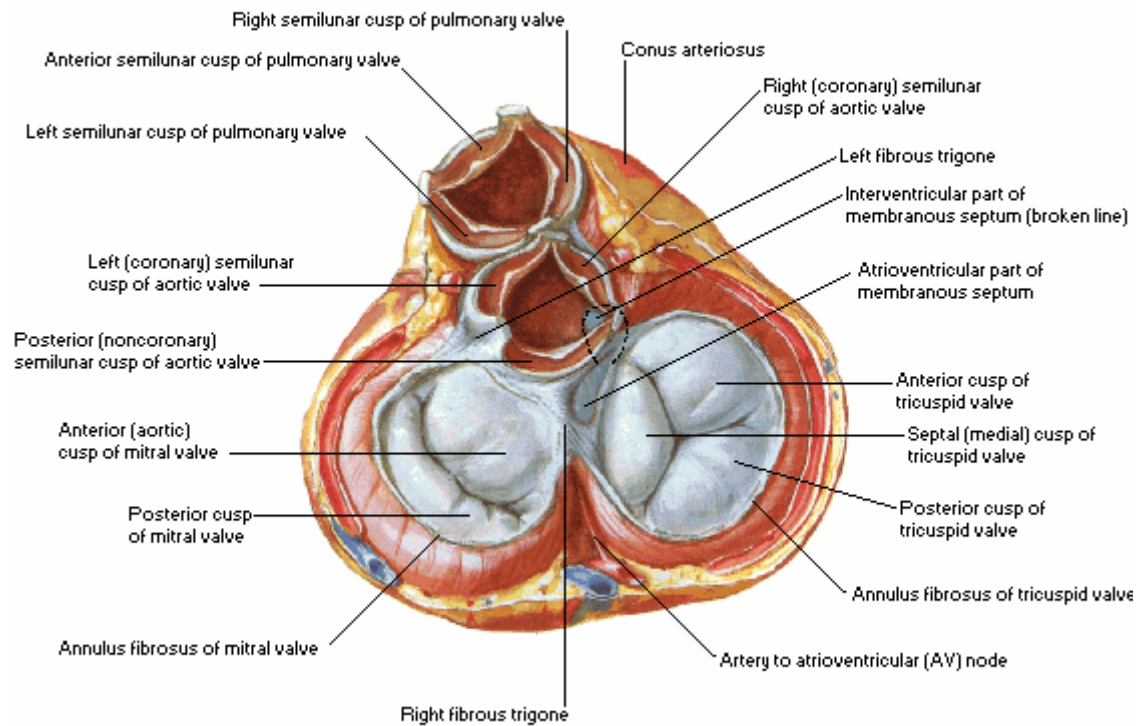


Sectioned with Mitral Valve Cut Away

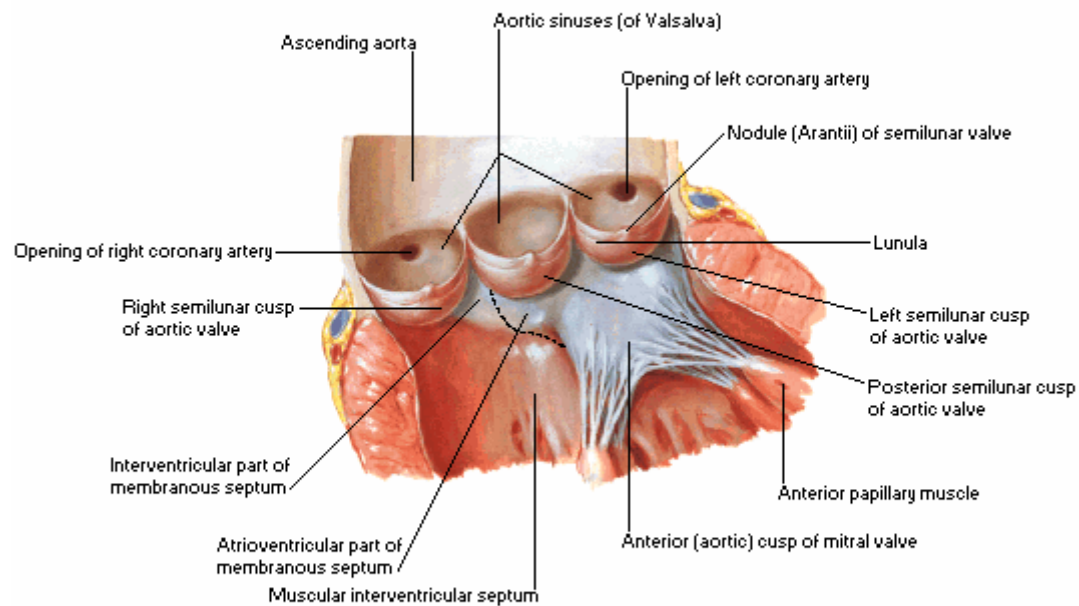




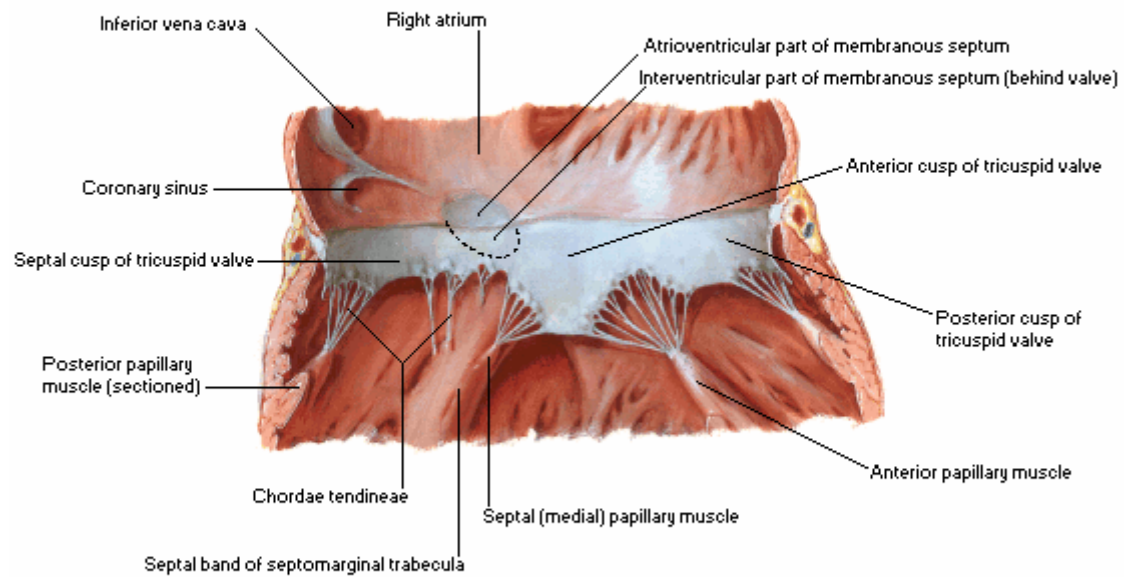
Viewed from base with atria removed

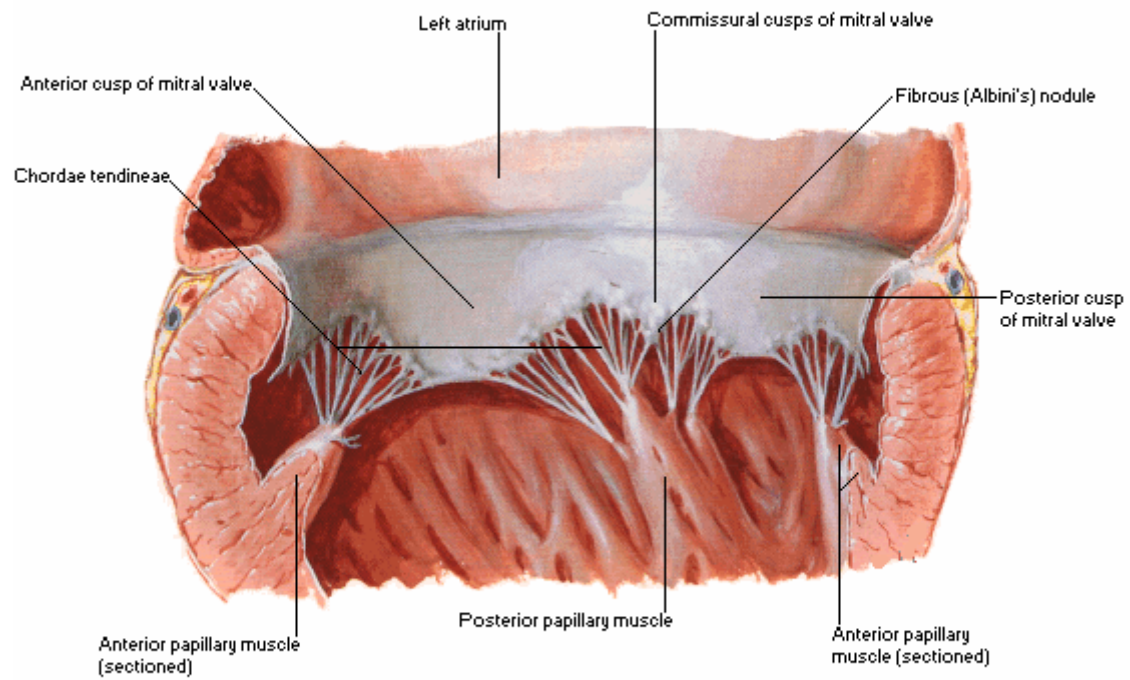


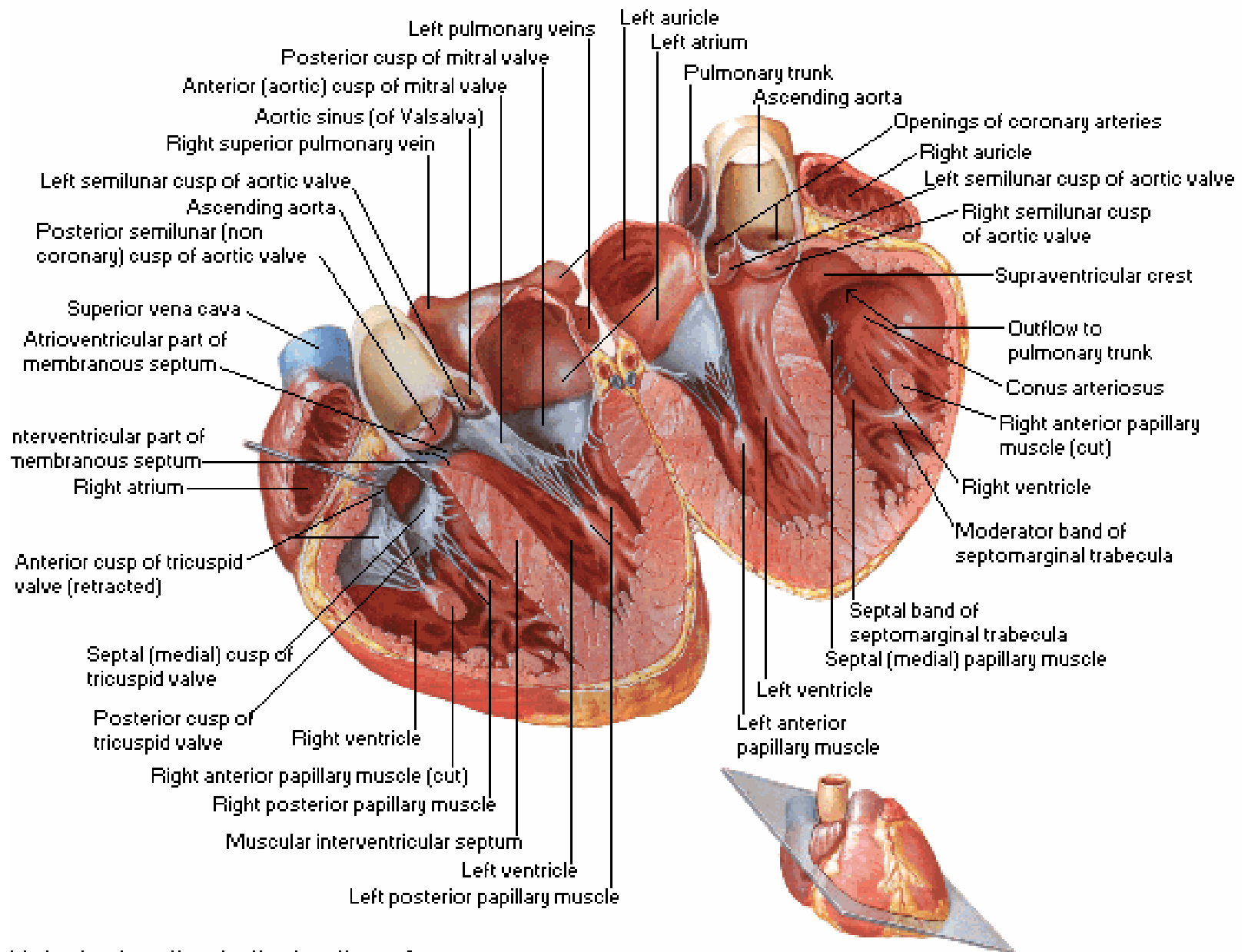
Viewed from base with atria removed



Note: broken line indicates level of origin of tricuspid valve on opposite side of septum.

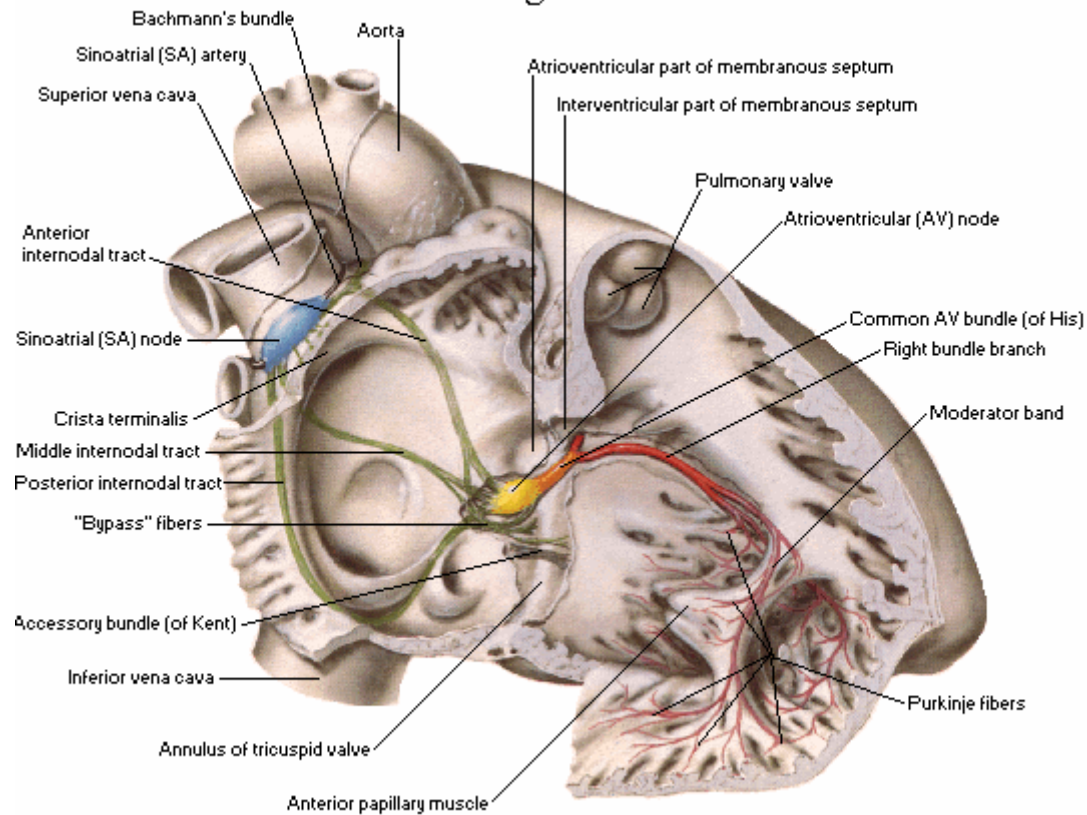




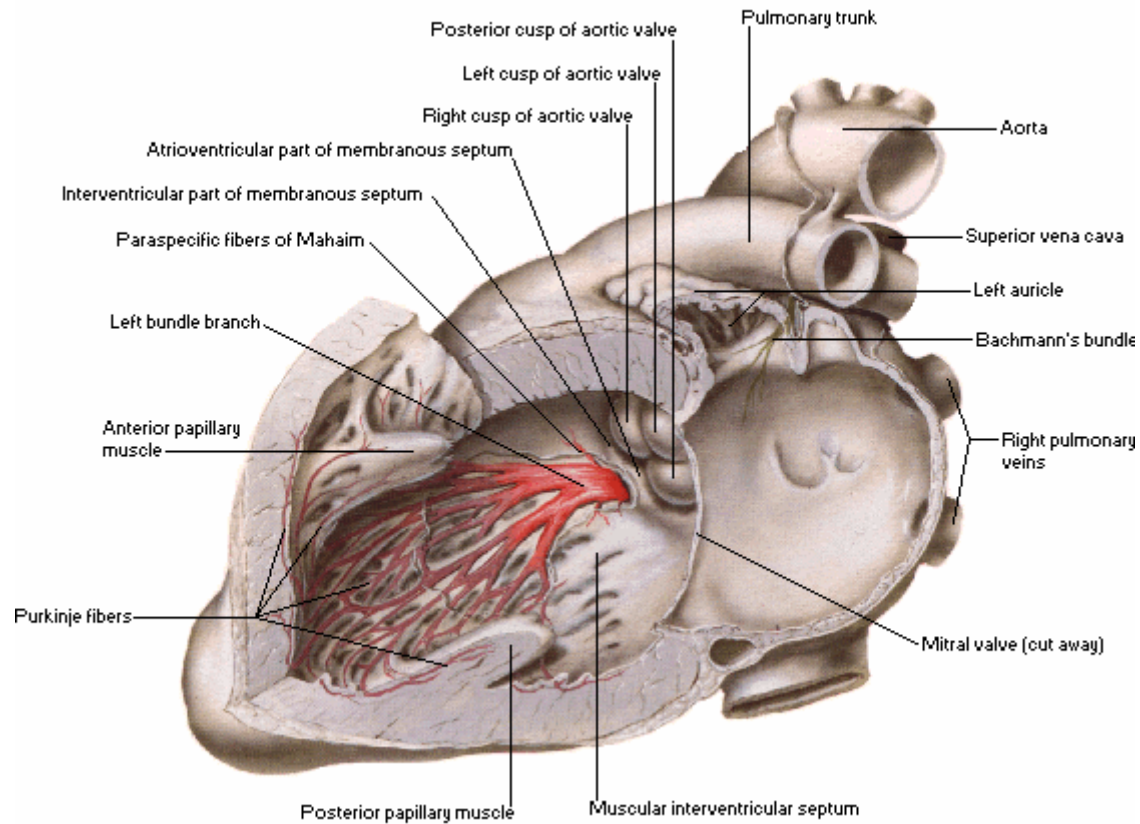


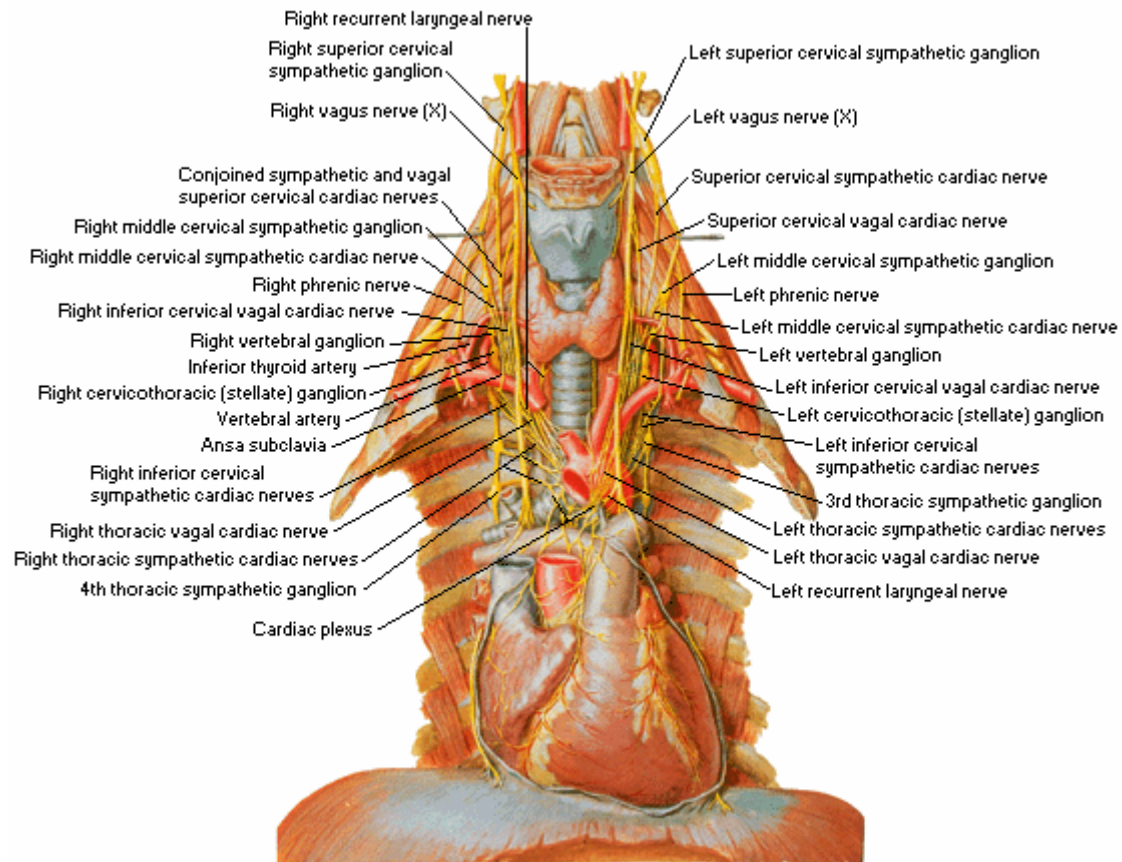
Note: broken line indicates line of attachment of septal leaflet of tricuspid valve.

Right Side

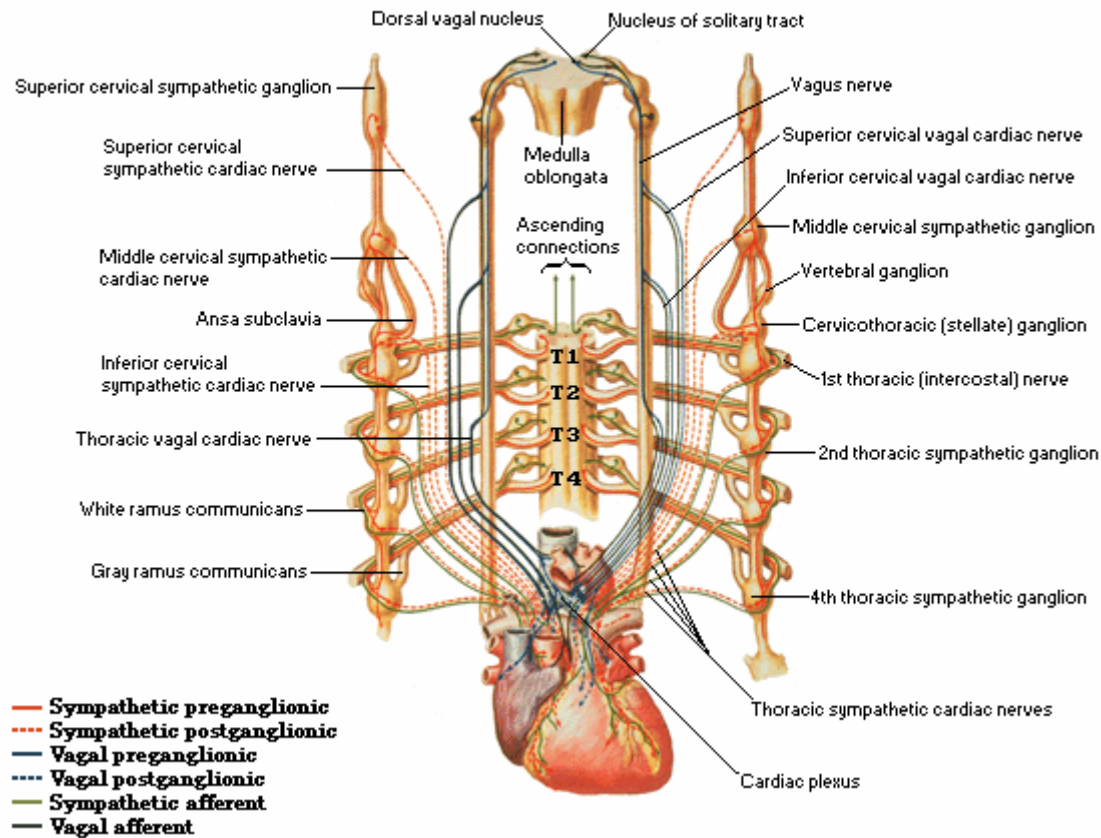


Left Side

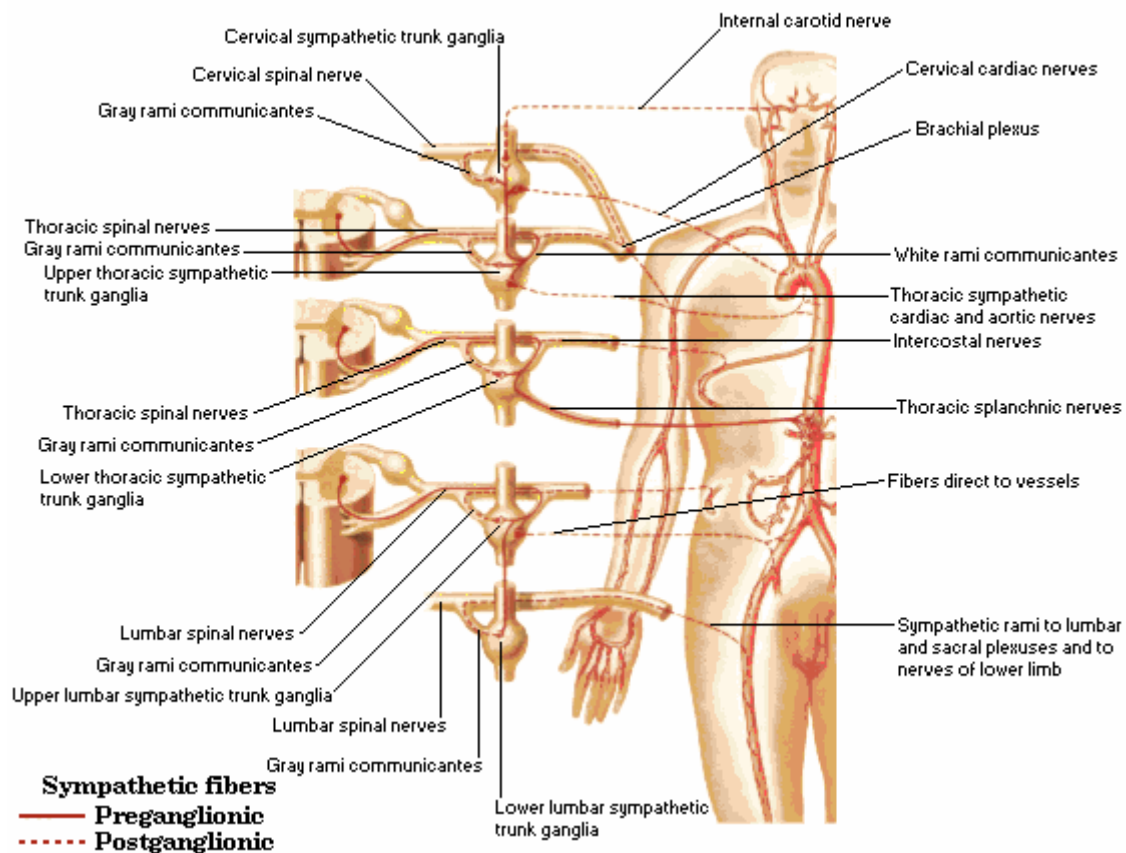


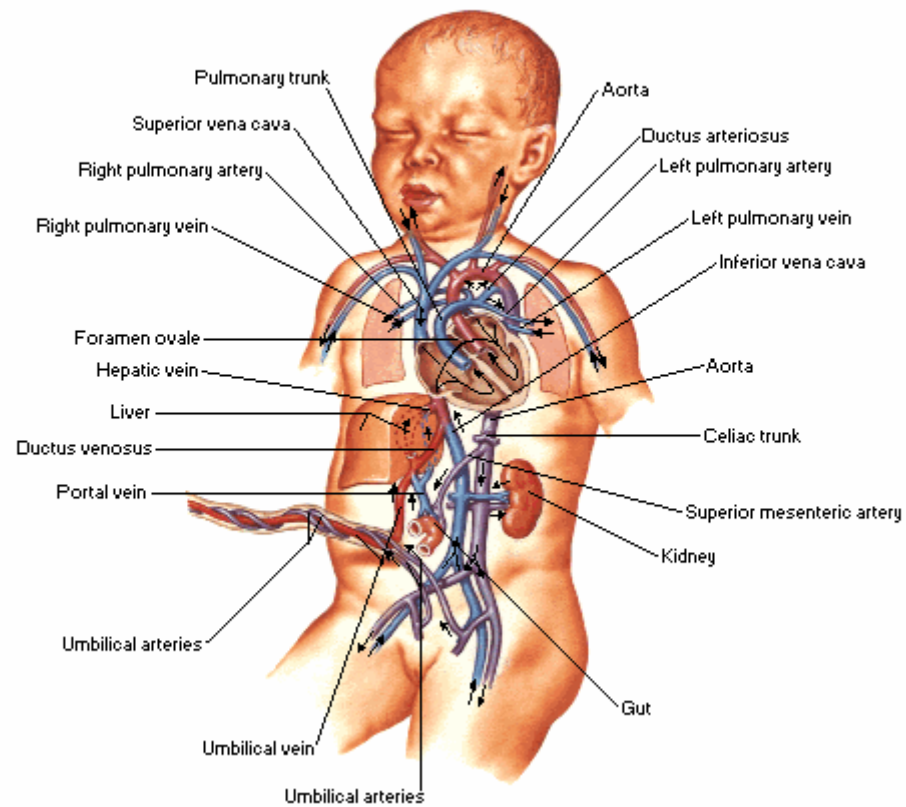


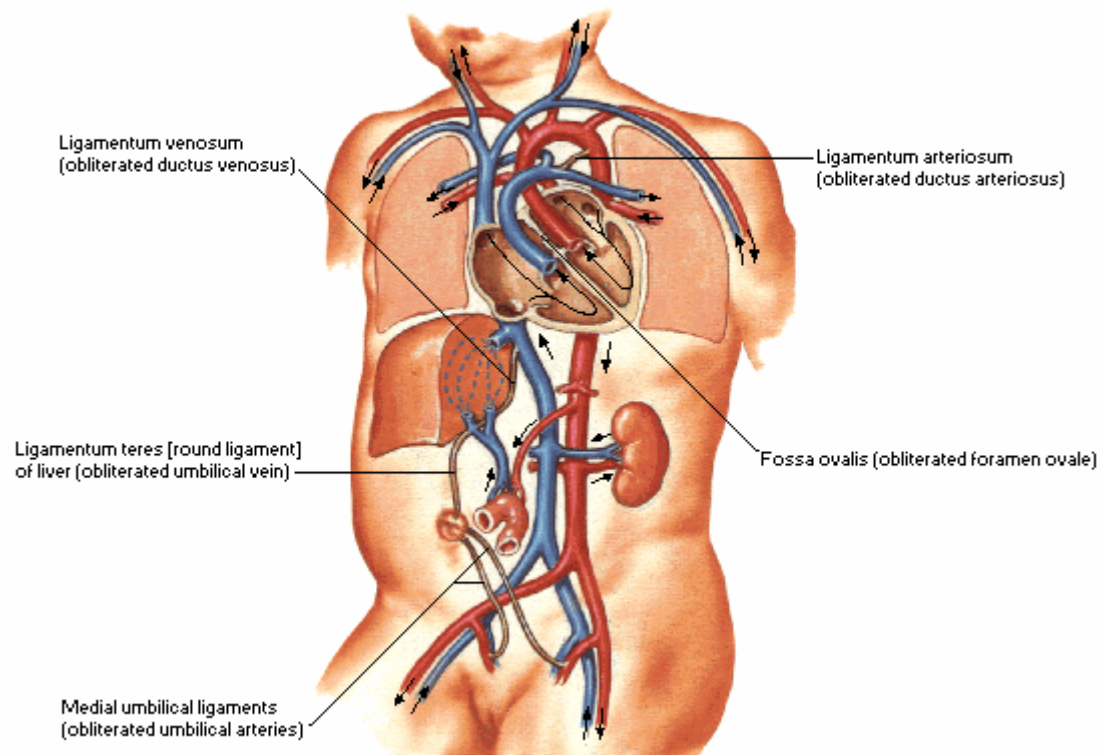
Schema



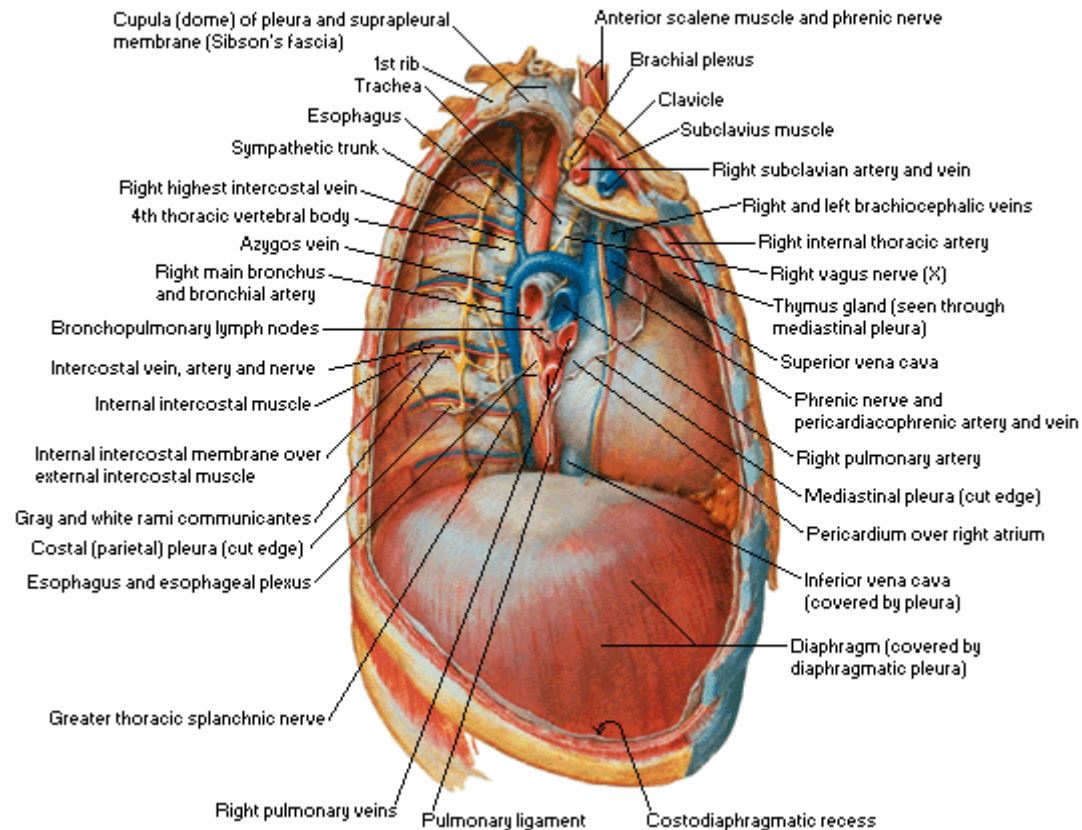
Schema



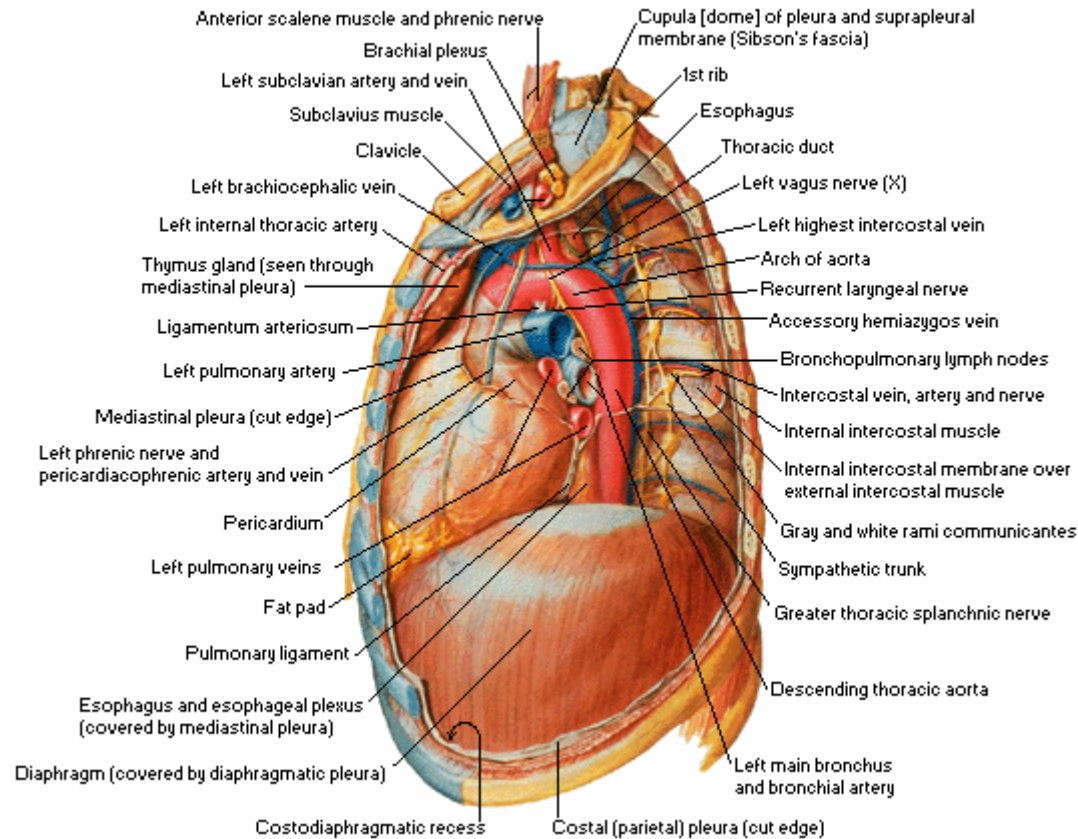


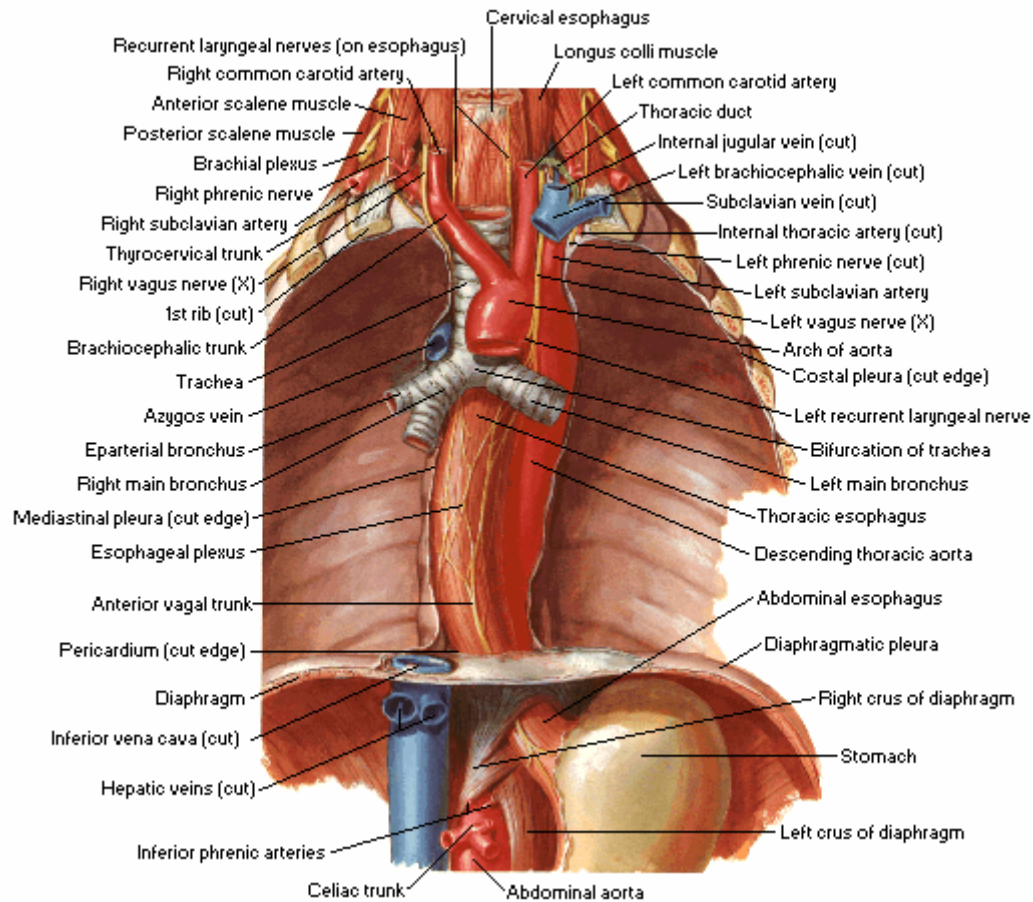


Right Lateral View

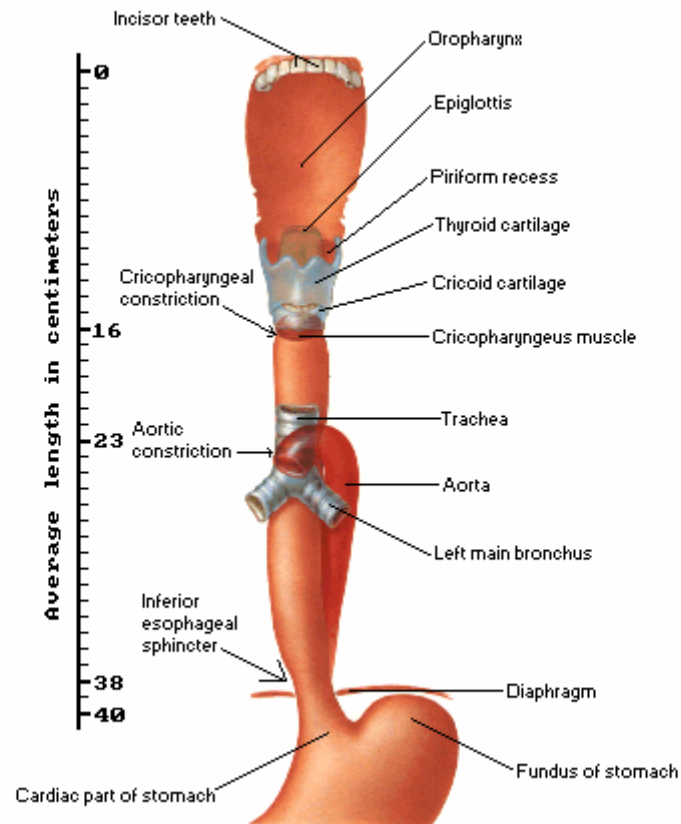


Left Lateral View

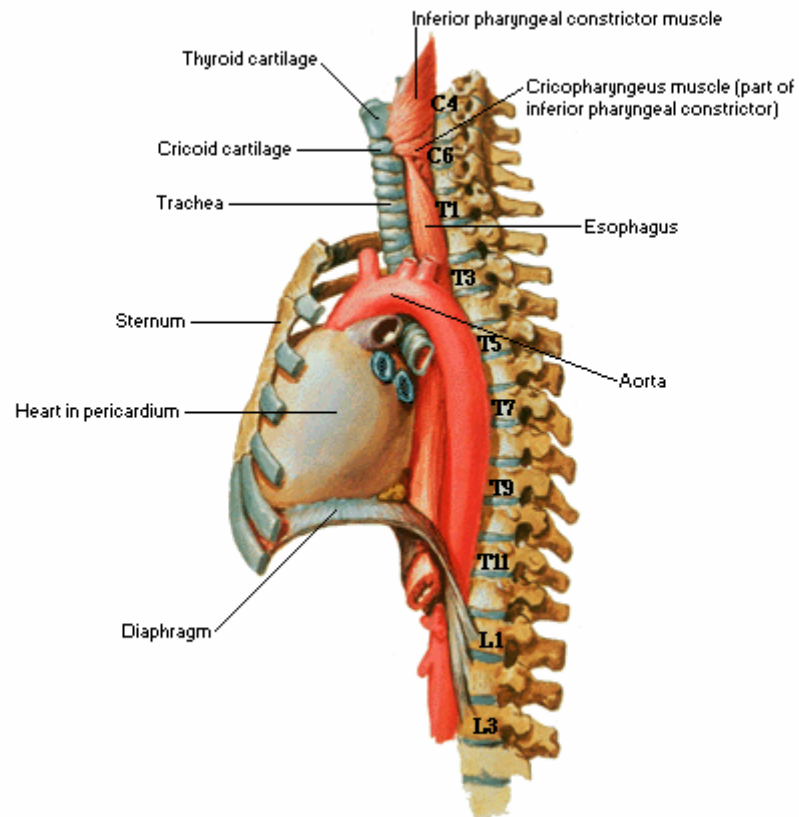


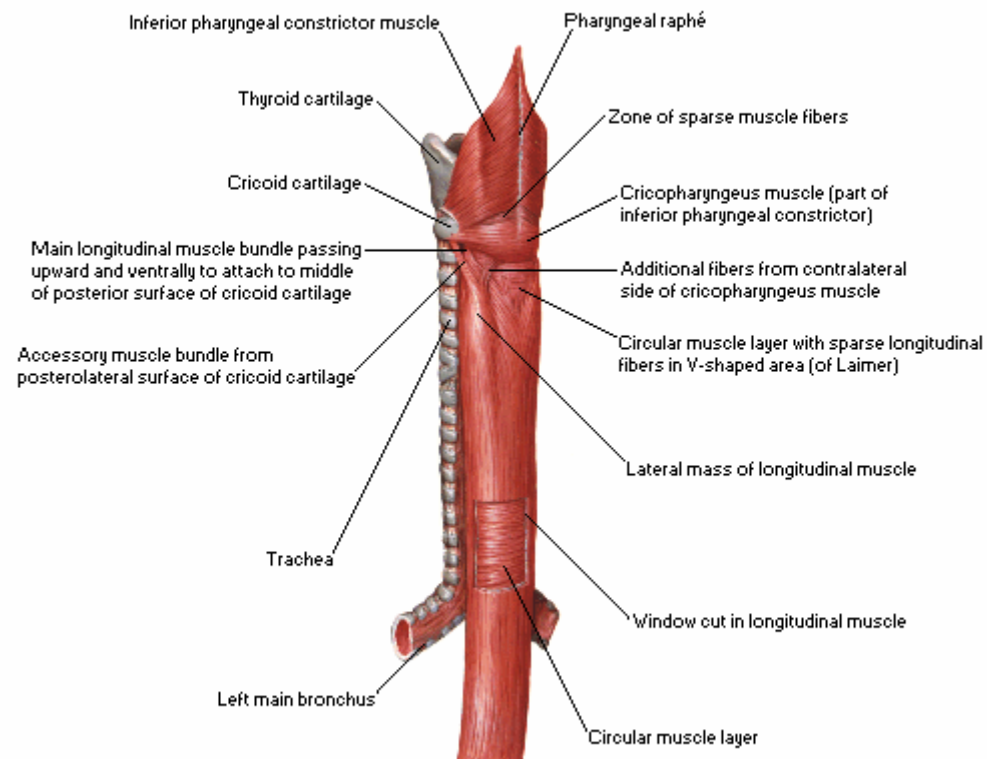


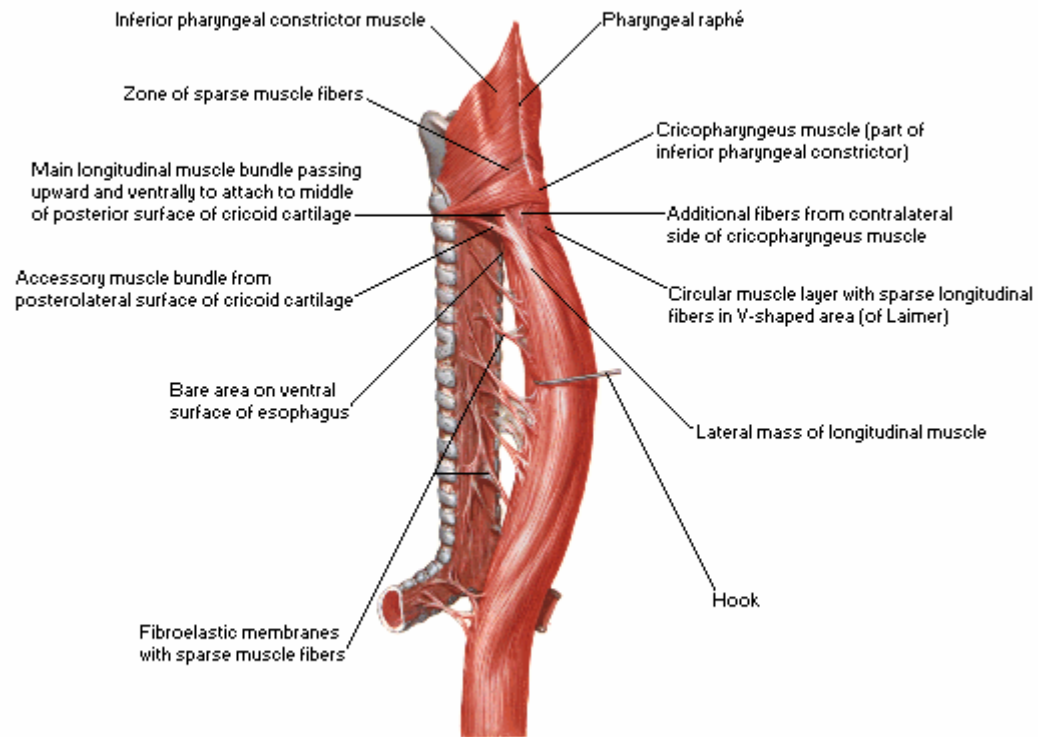
Schema - Anterior View

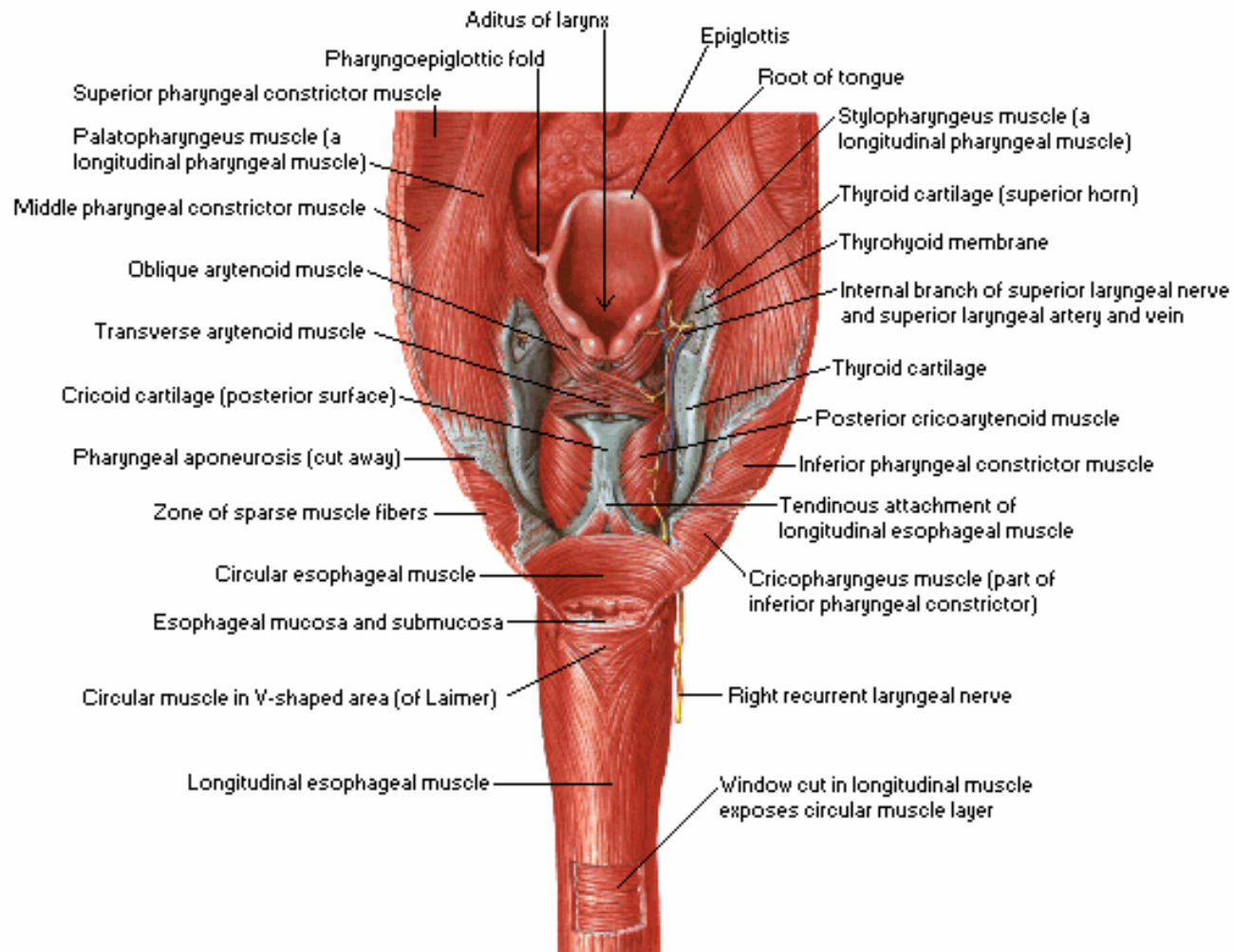


Lateral View



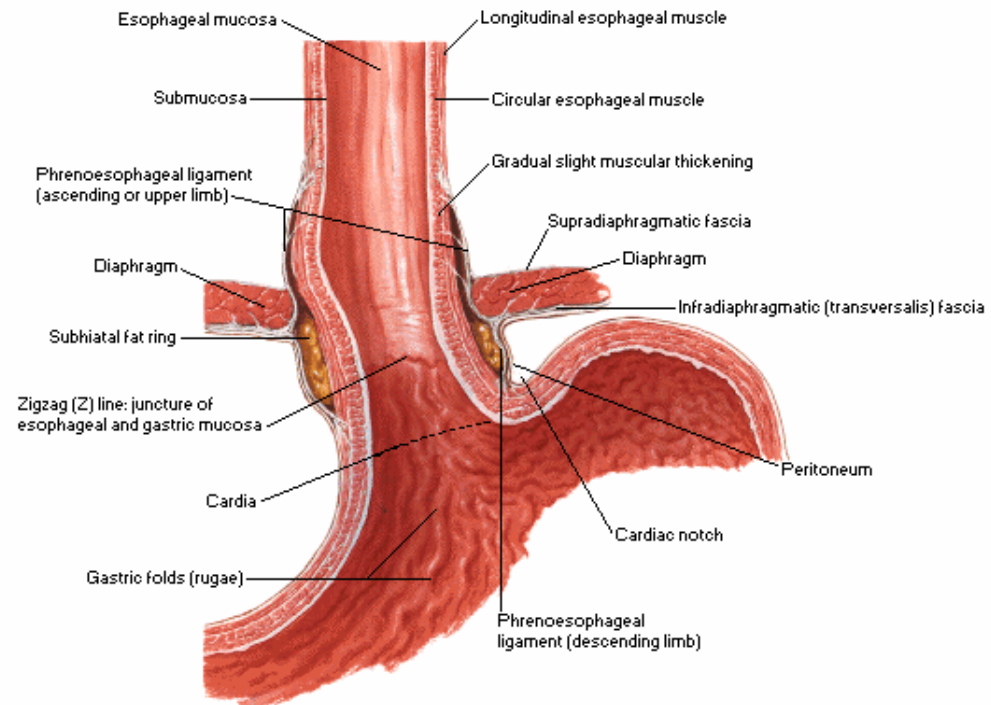




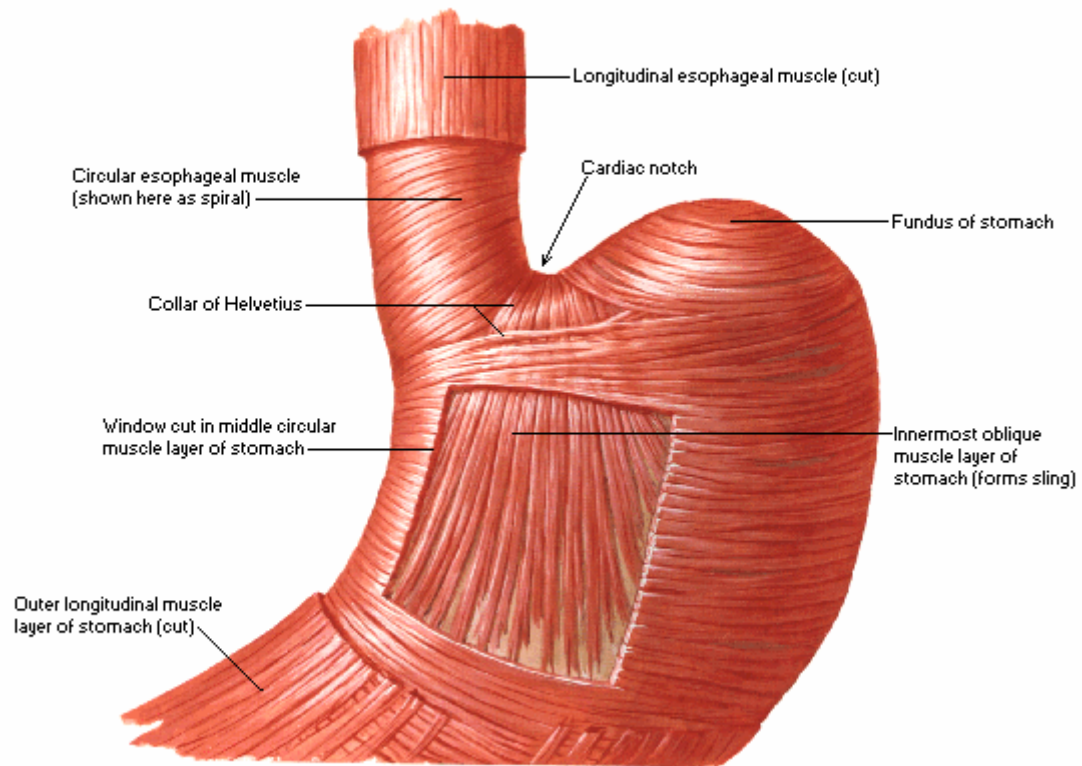


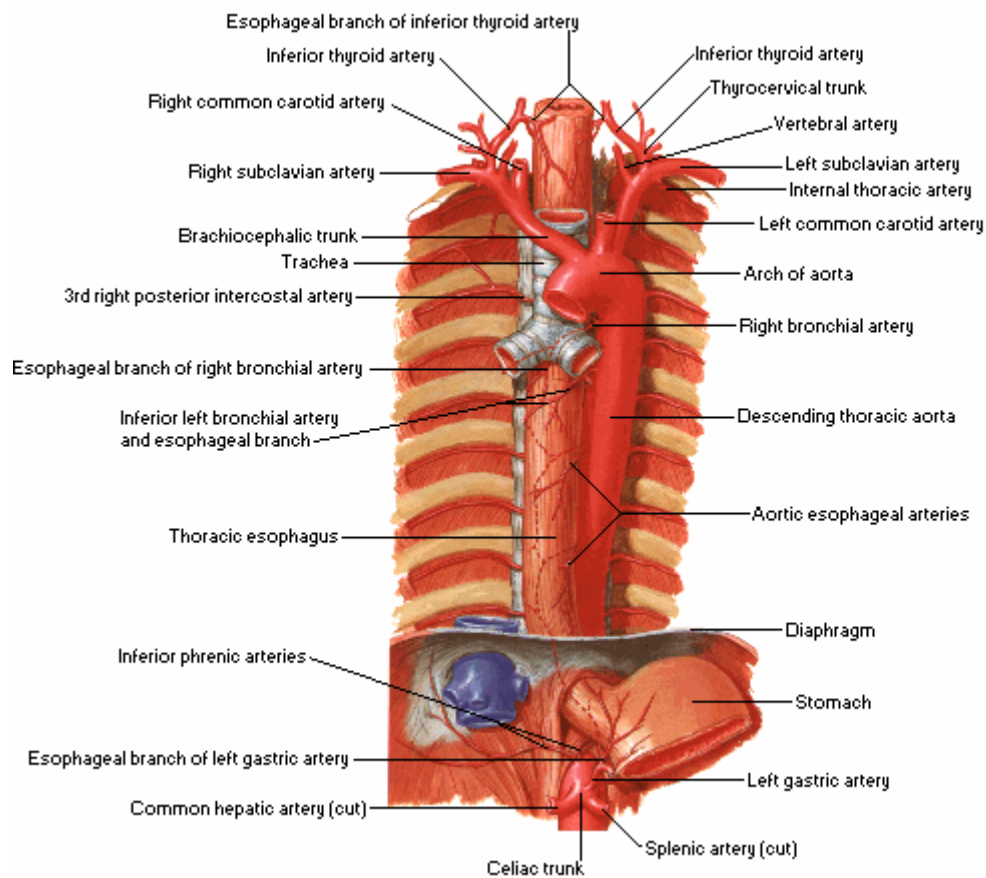
Posterior view with pharynx opened and mucosa removed

Coronal Section

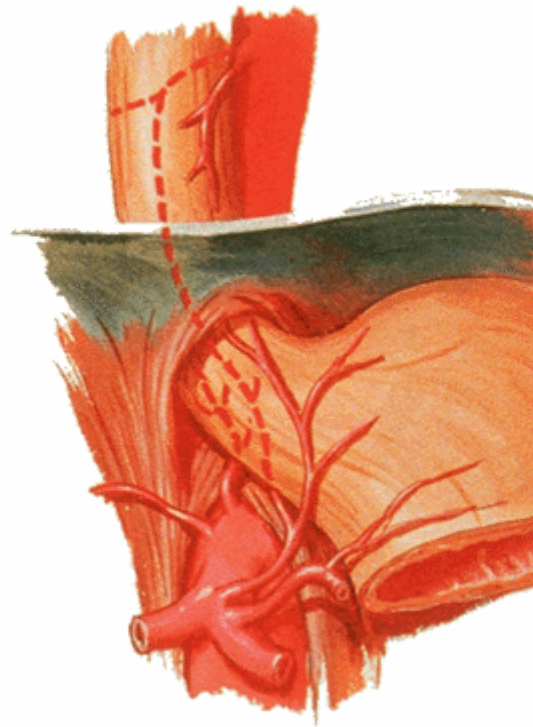


Anterior View

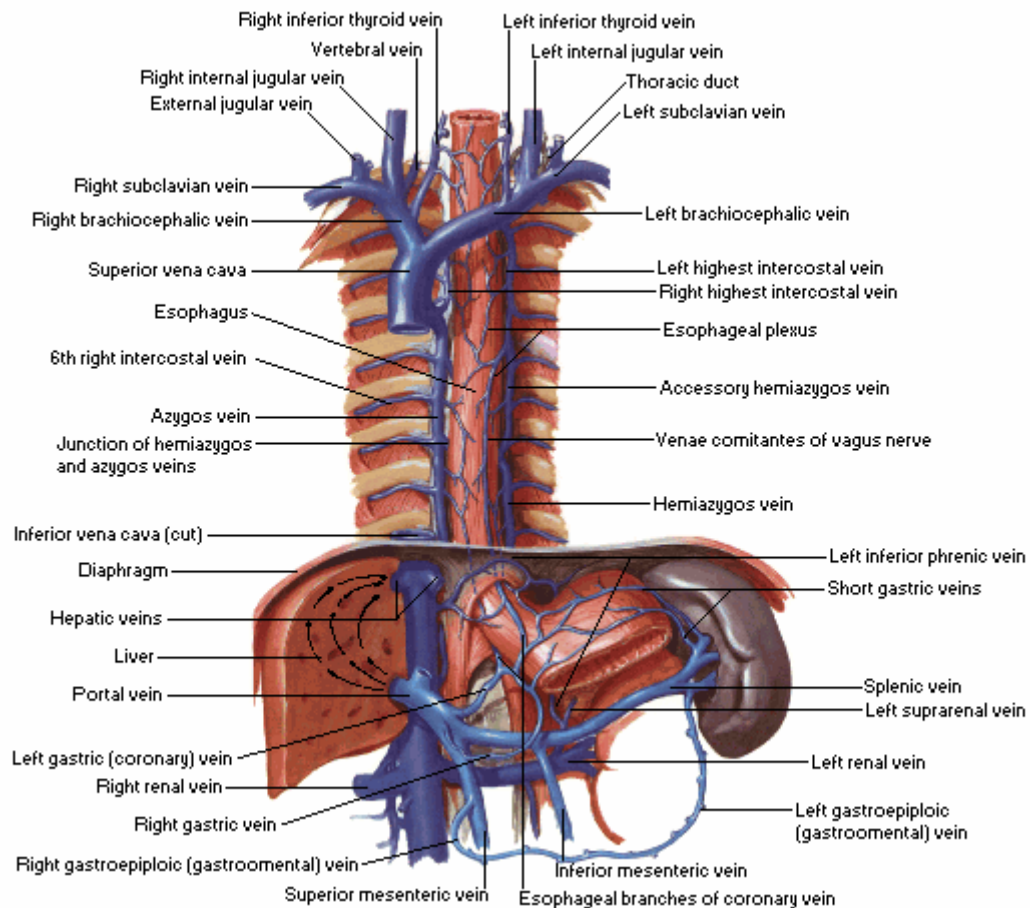




Variations

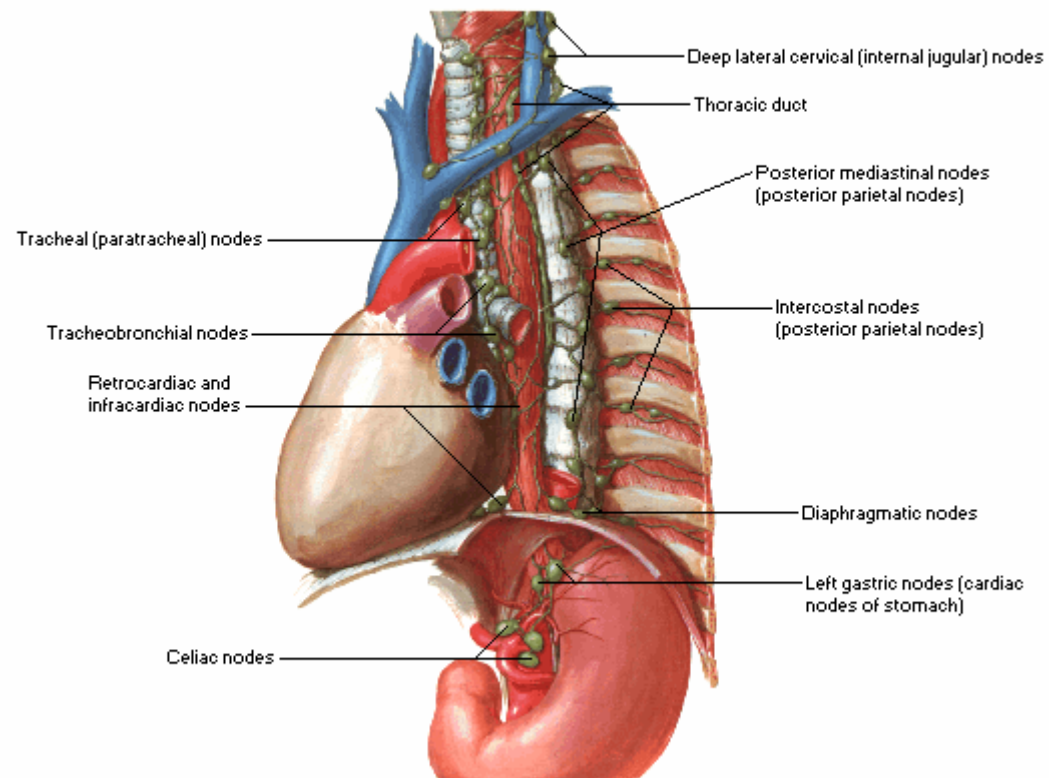


Common variations: Esophageal branches may originate from left inferior phrenic artery and/or directly from celiac trunk. Branches to abdominal esophagus may also come from splenic or short gastric arteries.

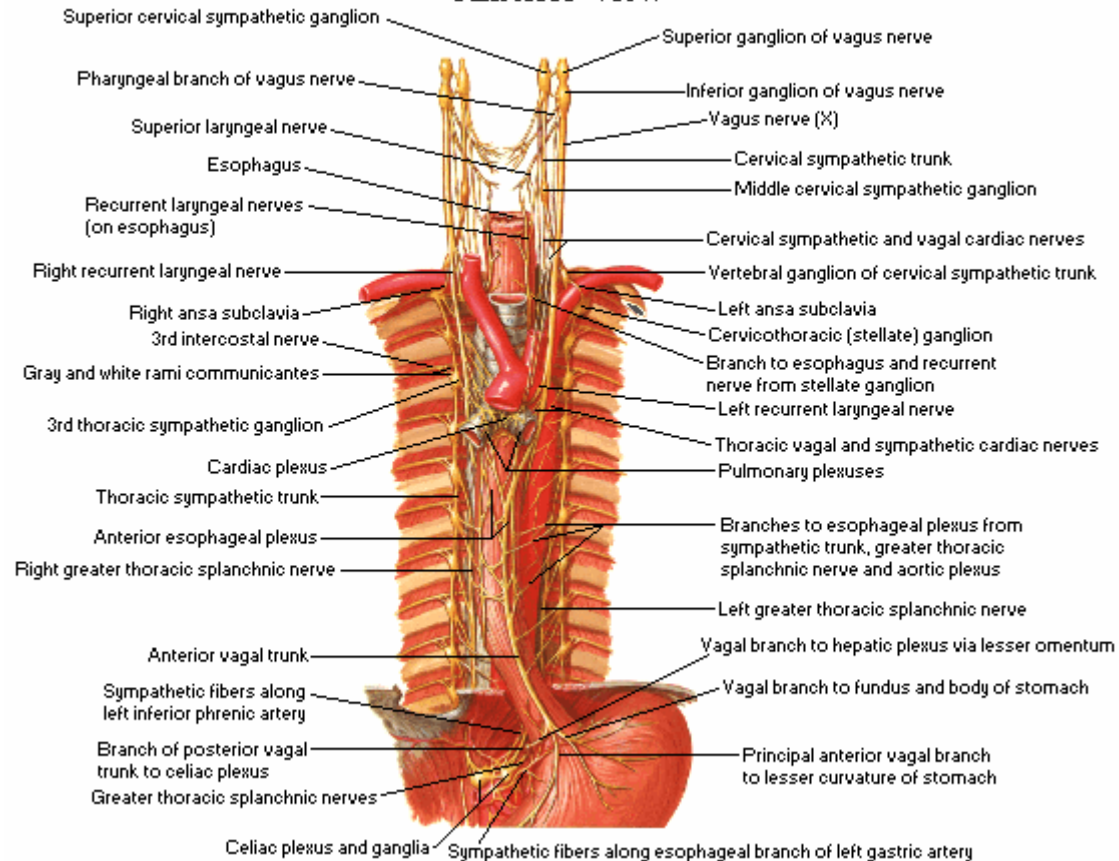


Submucous Venous Plexus

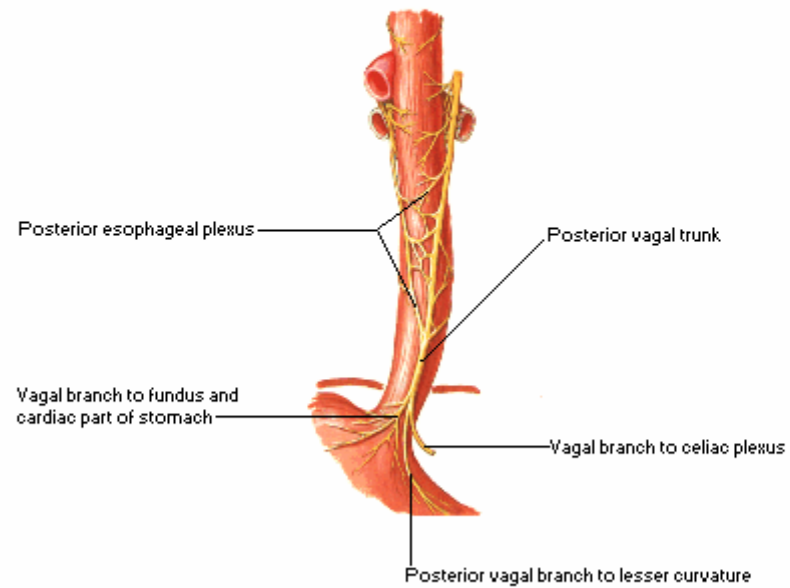




Anterior View



Posterior View



Variations

Multiple
anterior
vagal
trunks



Single anterior vagal
trunk divides just
above diaphragm



Multiple
posterior
vagal
trunks



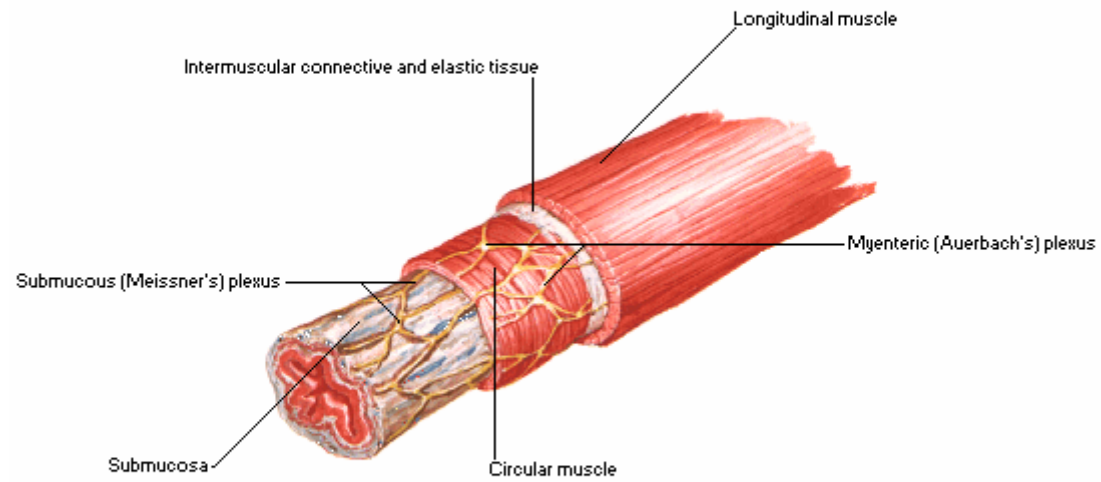
High
emergence
of single
trunk



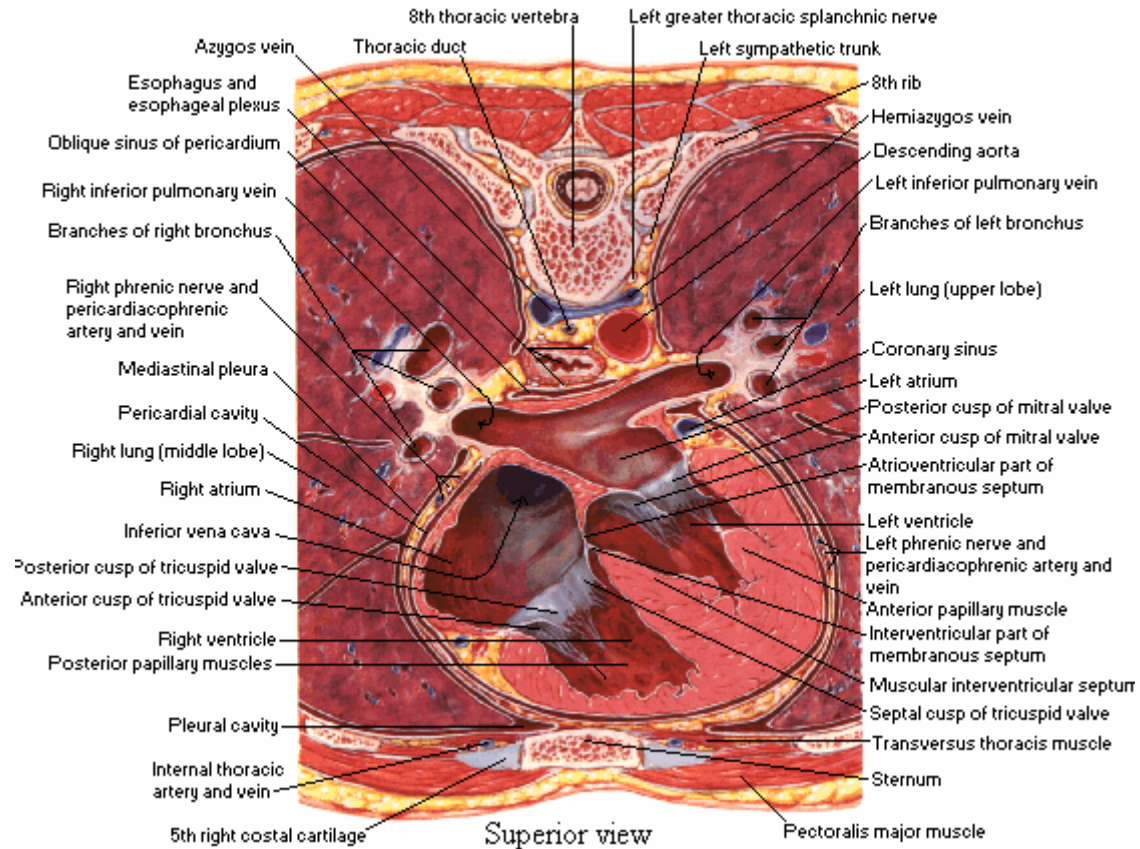
Low
emergence
of single
trunk

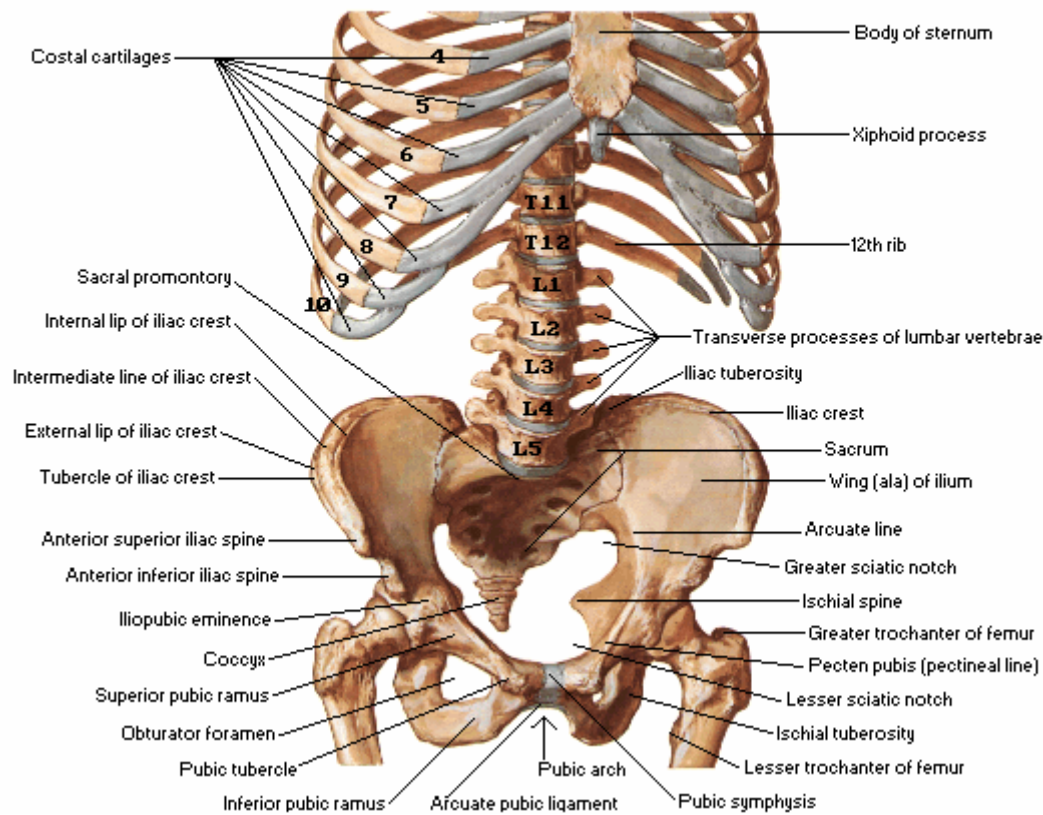


Schema

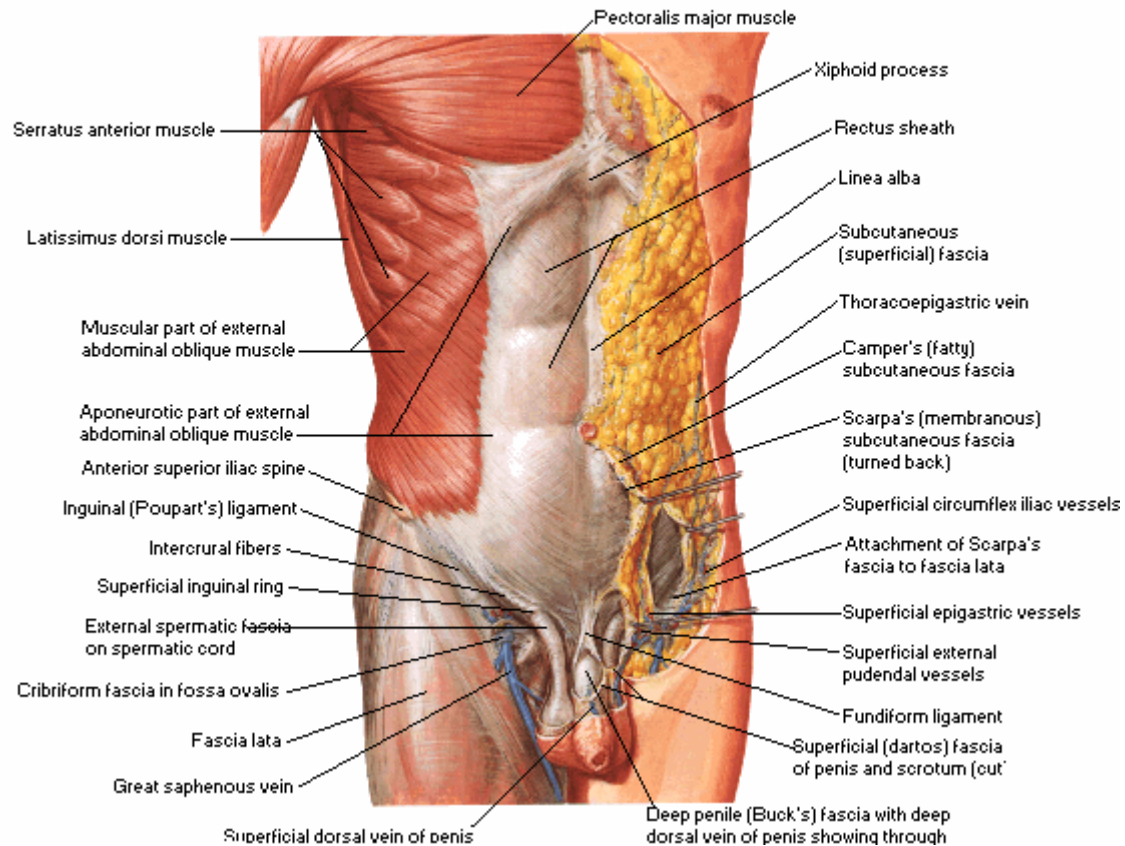


Cross Section

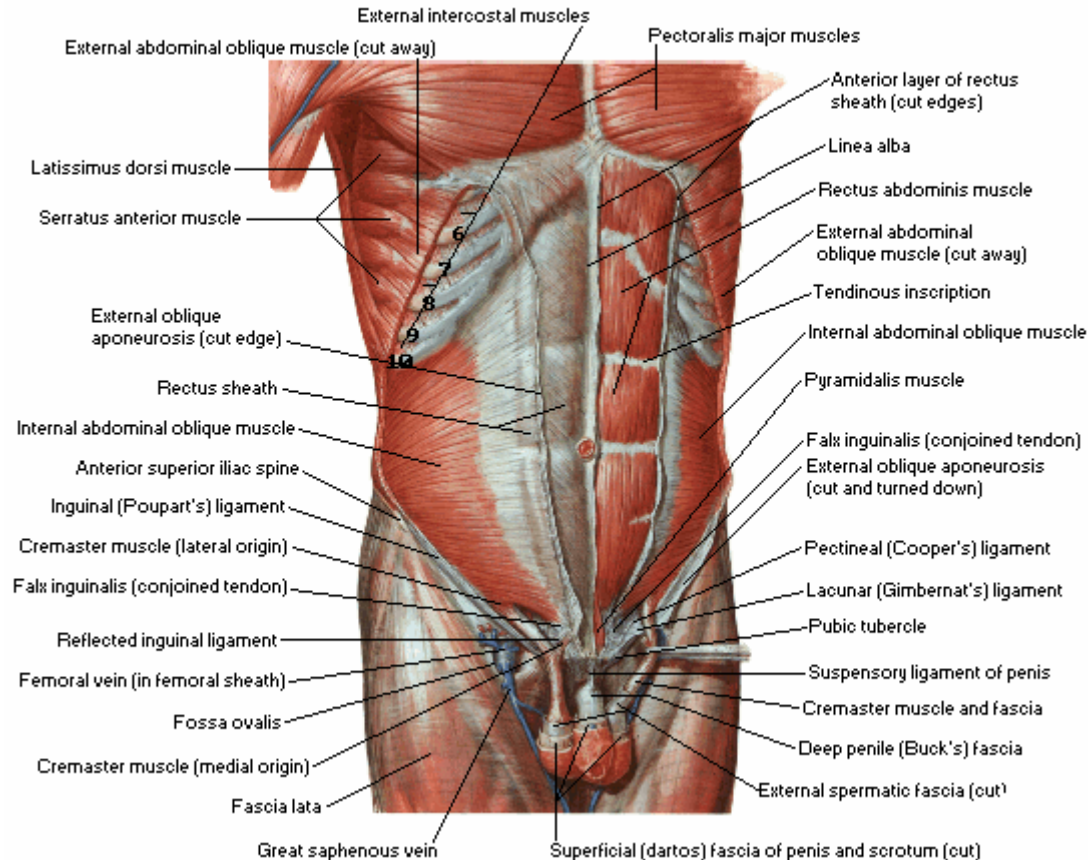




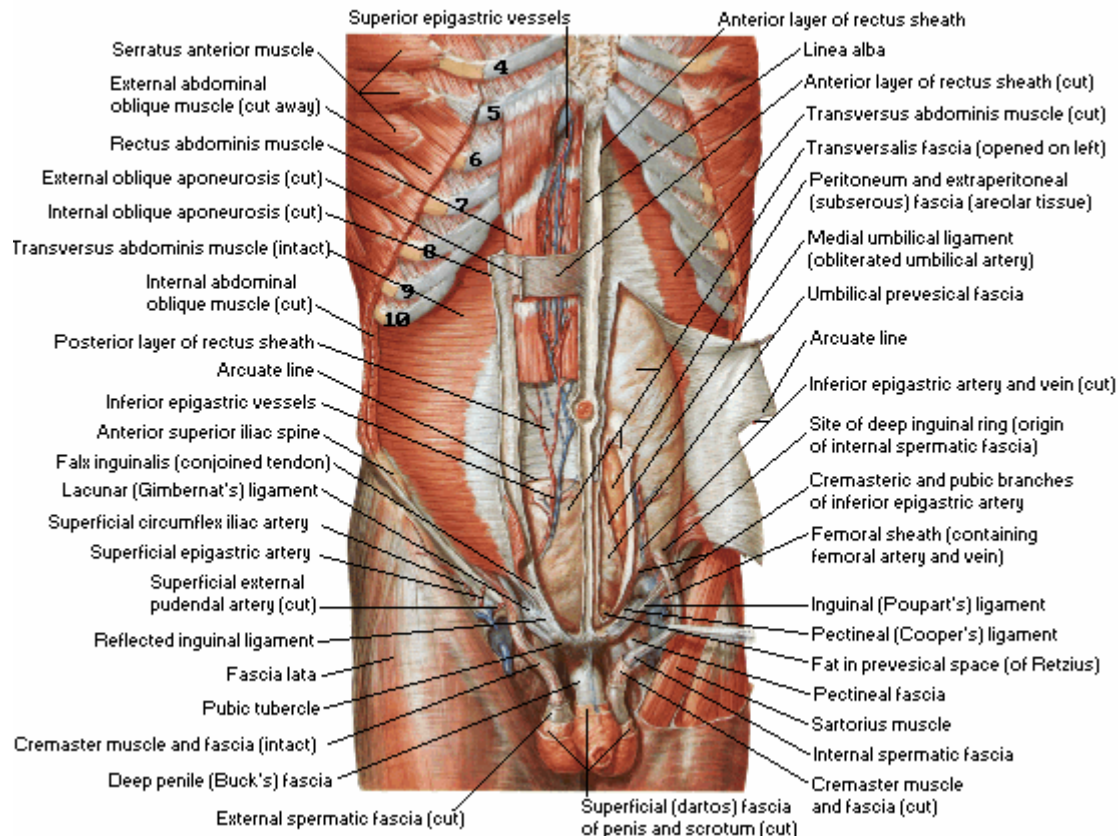
Superficial Dissection



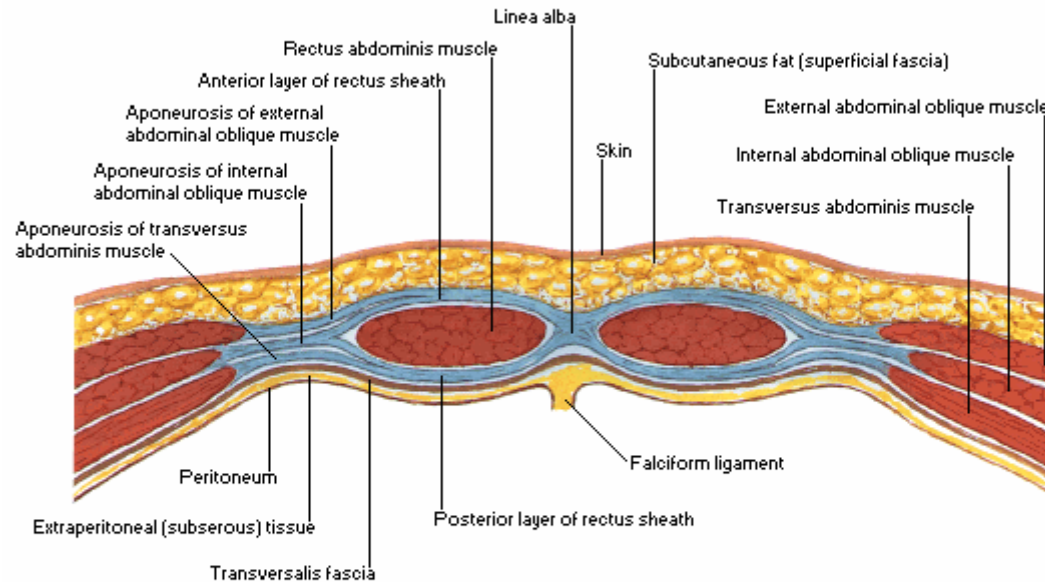
Intermediate Dissection



Deep Dissection

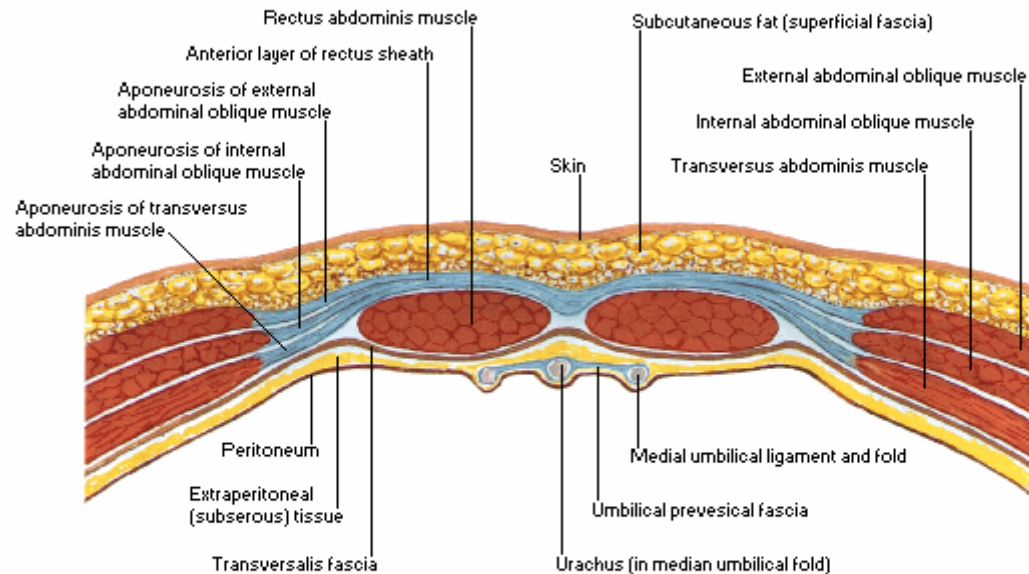


Cross Section Above Arcuate Line

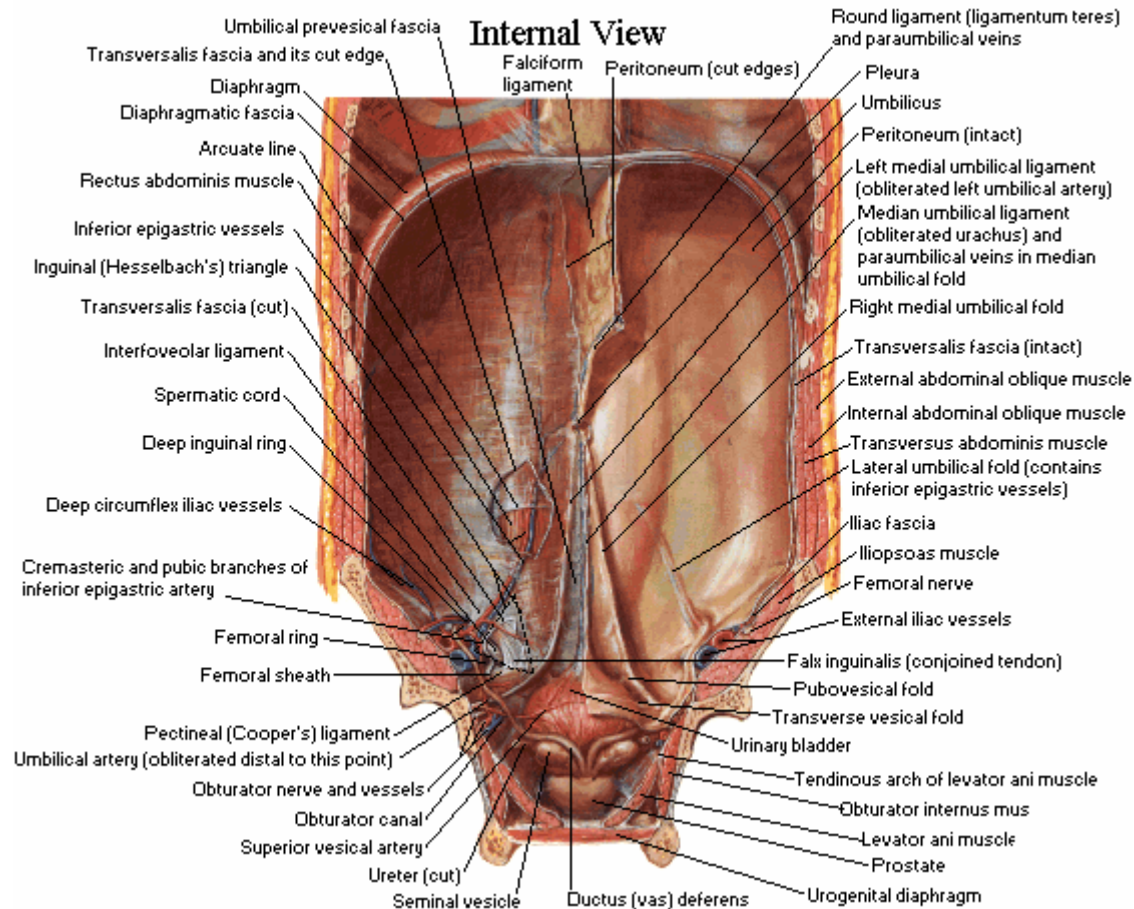


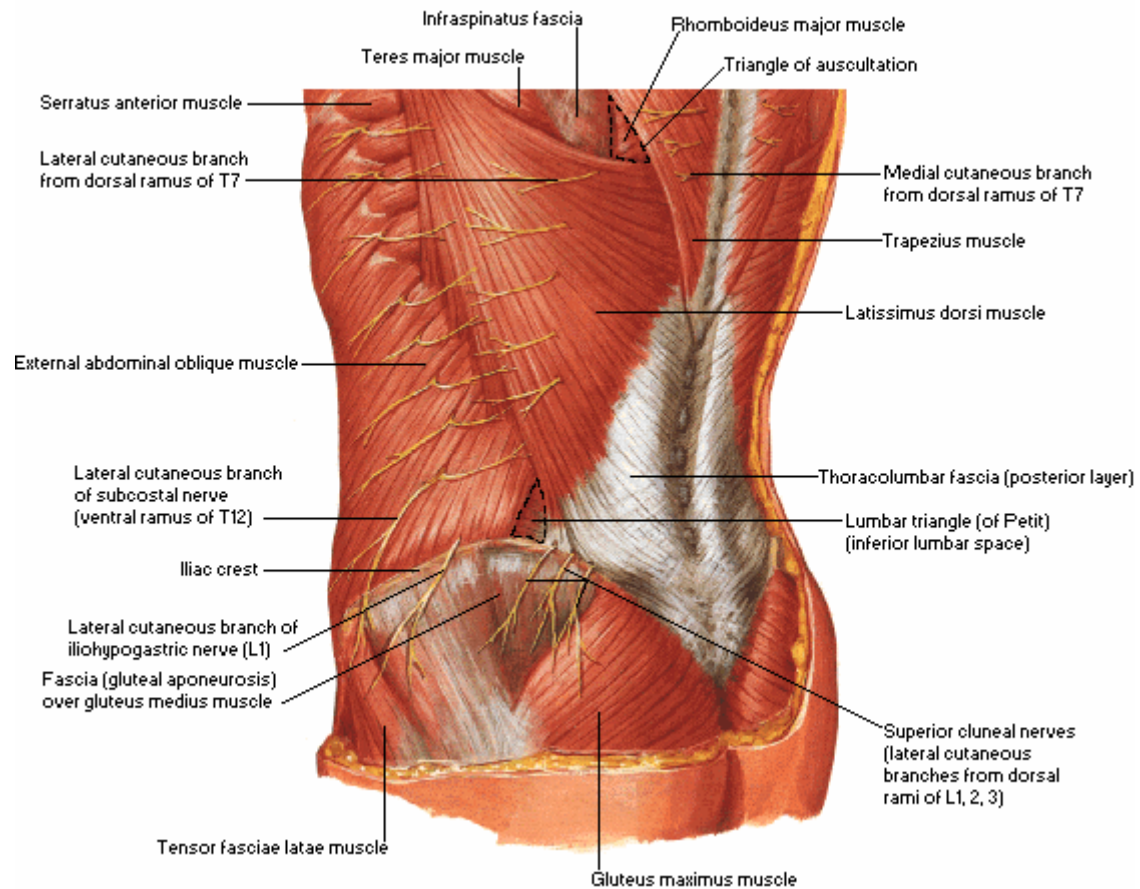
Aponeurosis of internal abdominal oblique muscle splits to form anterior and posterior layers of rectus sheath. Aponeurosis of external abdominal oblique muscle joins anterior layer of sheath; aponeurosis of transversus abdominis muscle joins posterior layer. Anterior and posterior layers of rectus sheath unite medially to form linea alba

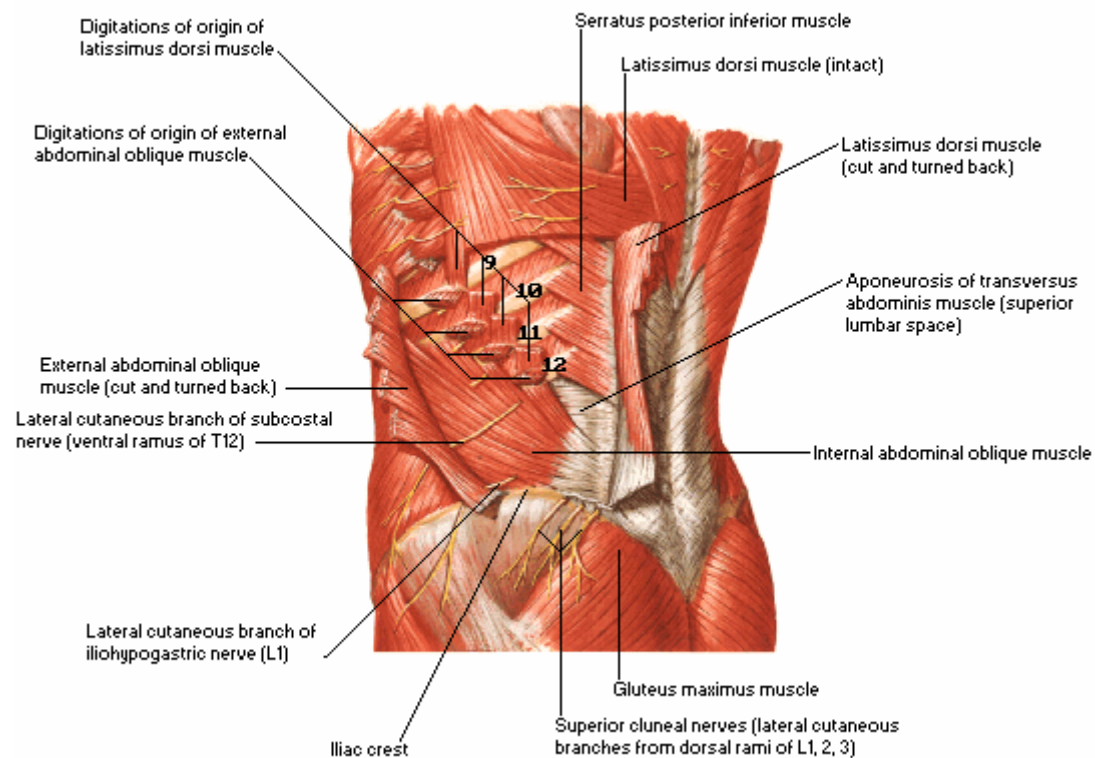
Cross Section Below Arcuate Line

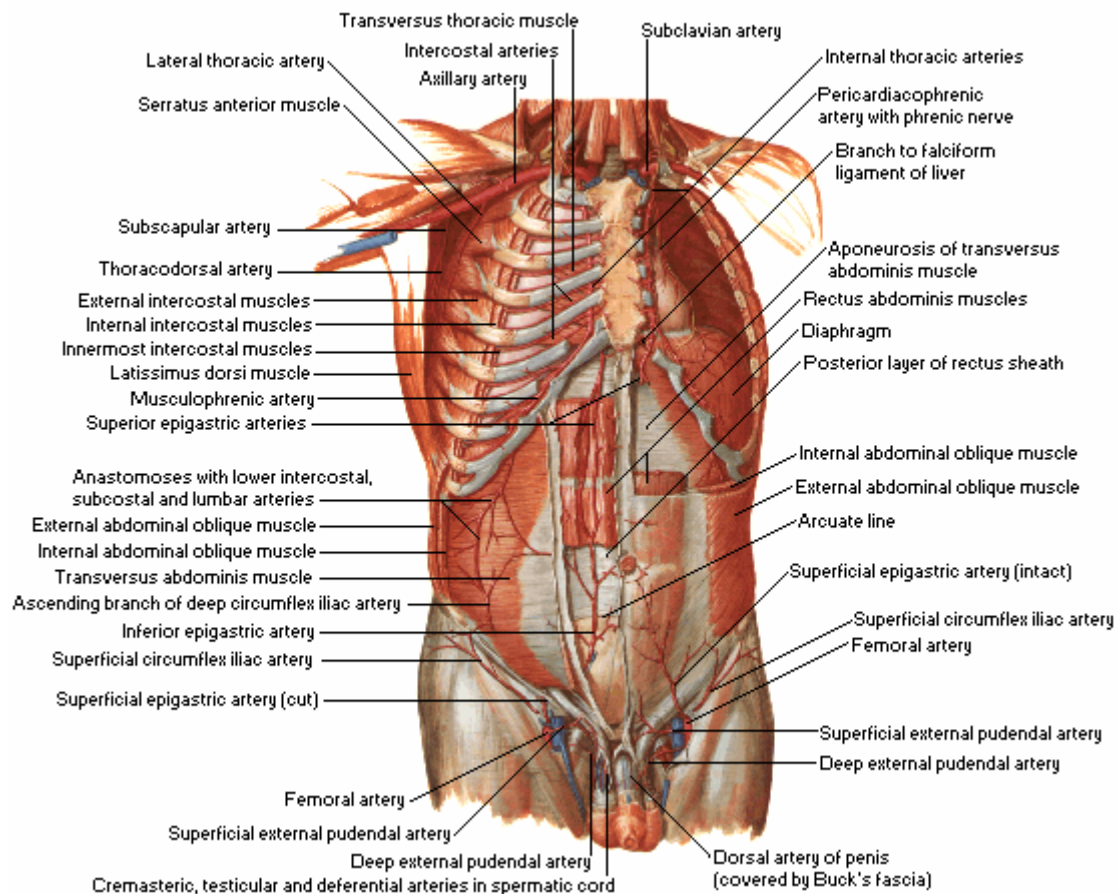


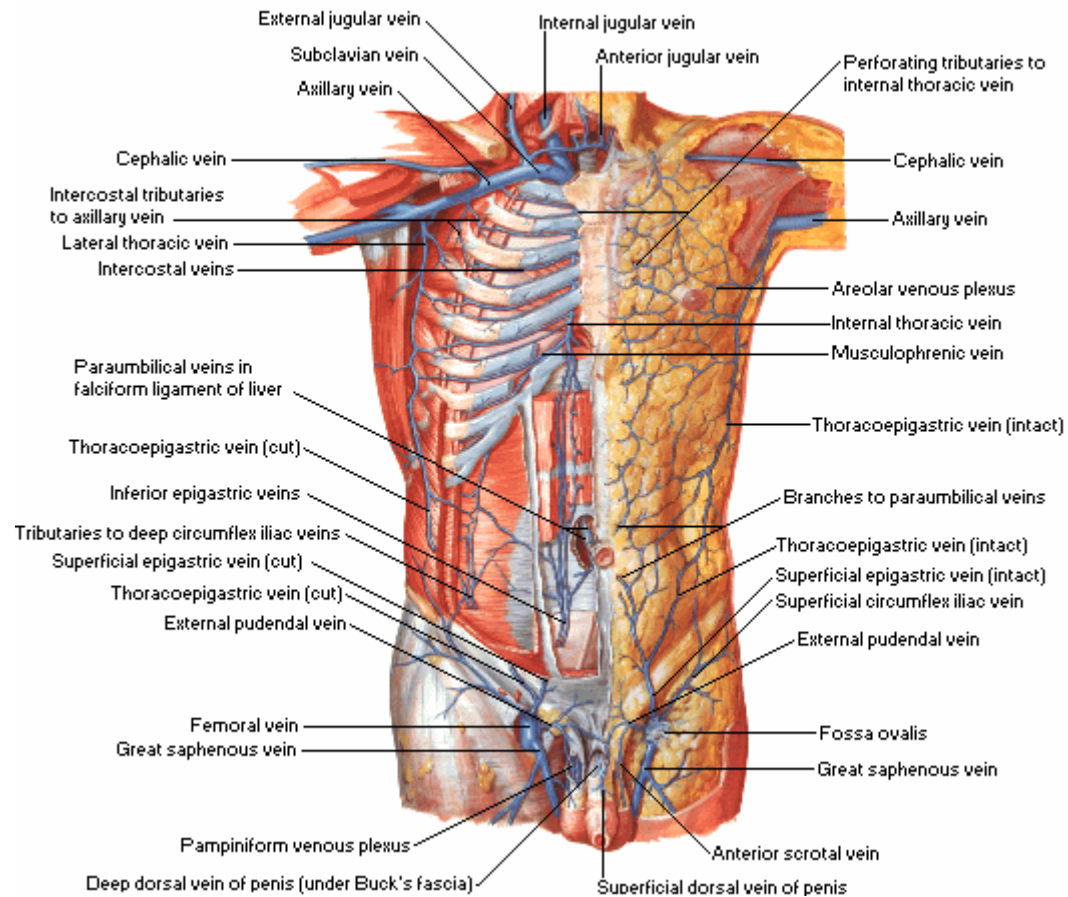
Aponeurosis of internal abdominal oblique muscle does not split at this level but passes completely anterior to rectus abdominis muscle and is fused there with both aponeurosis of external abdominal oblique muscle and that of transversus abdominis muscle. Thus posterior wall of rectus sheath is absent below arcuate line and rectus abdominis muscle lies on transversalis fascia

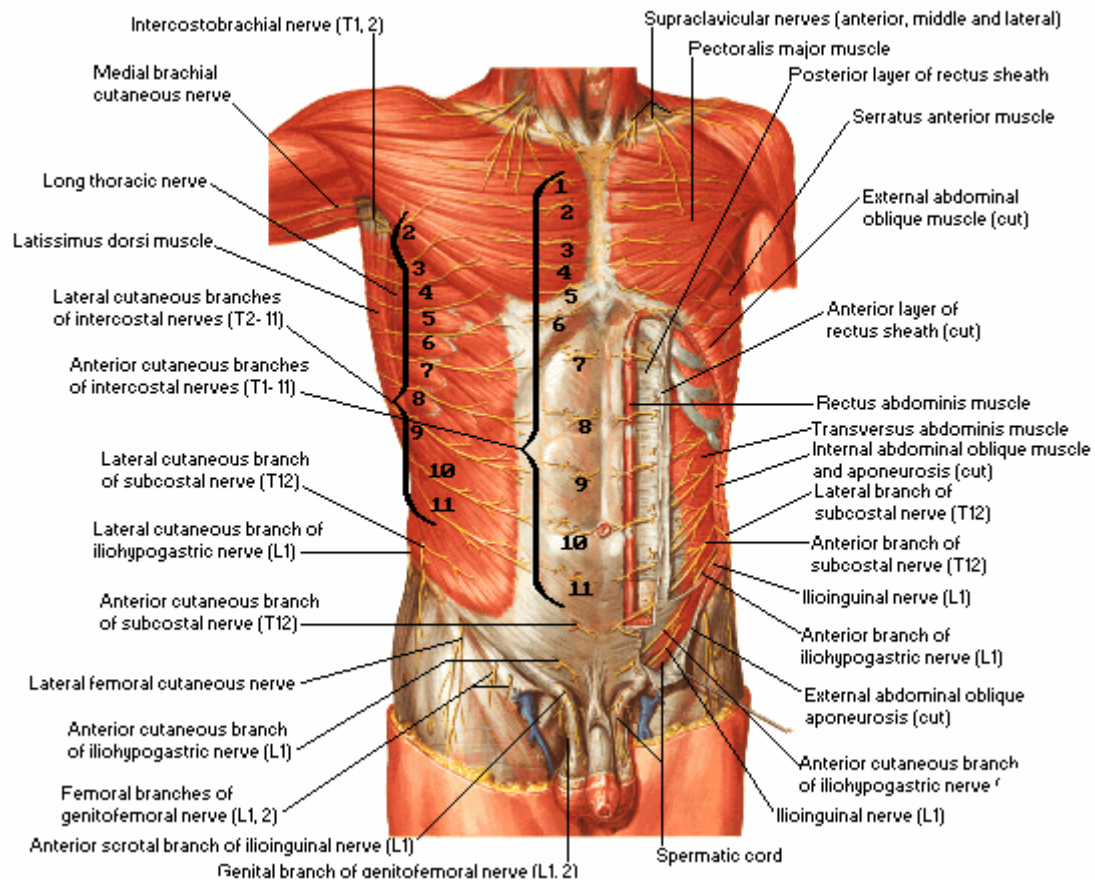


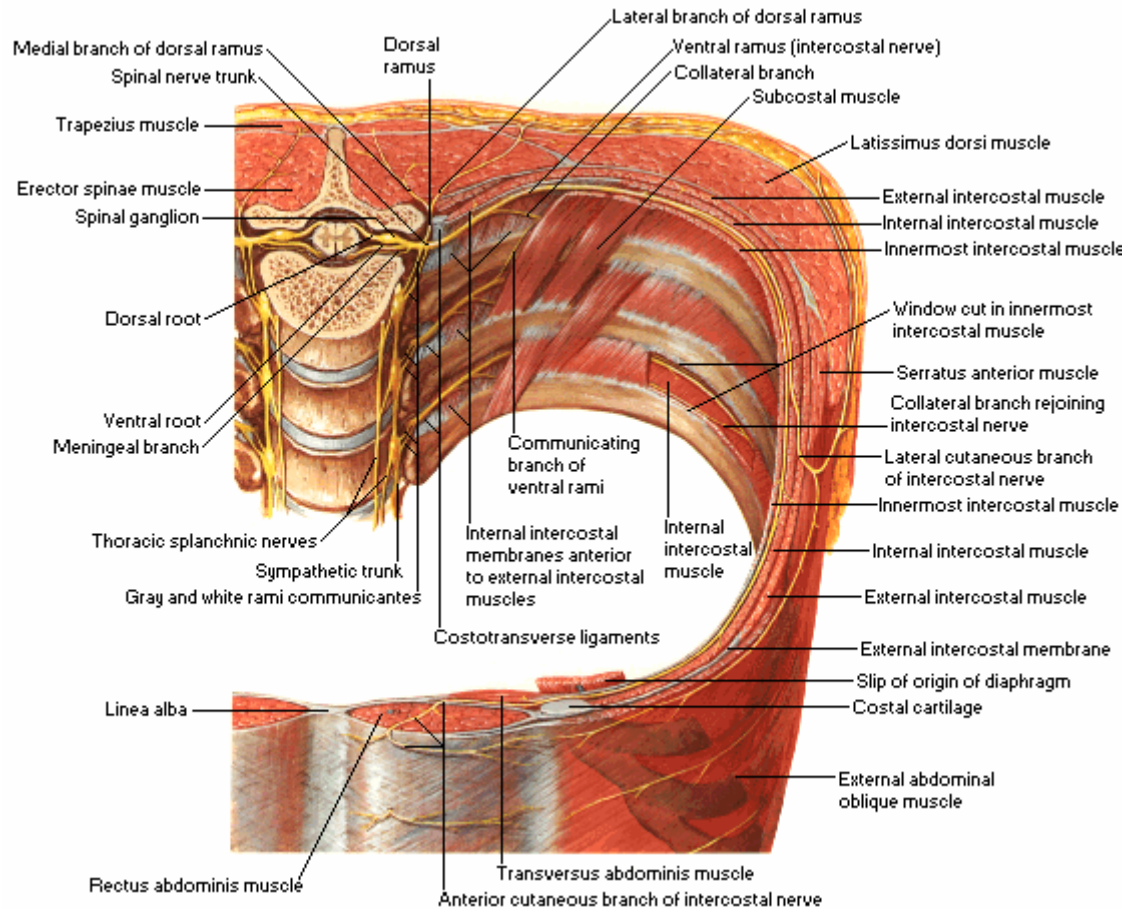




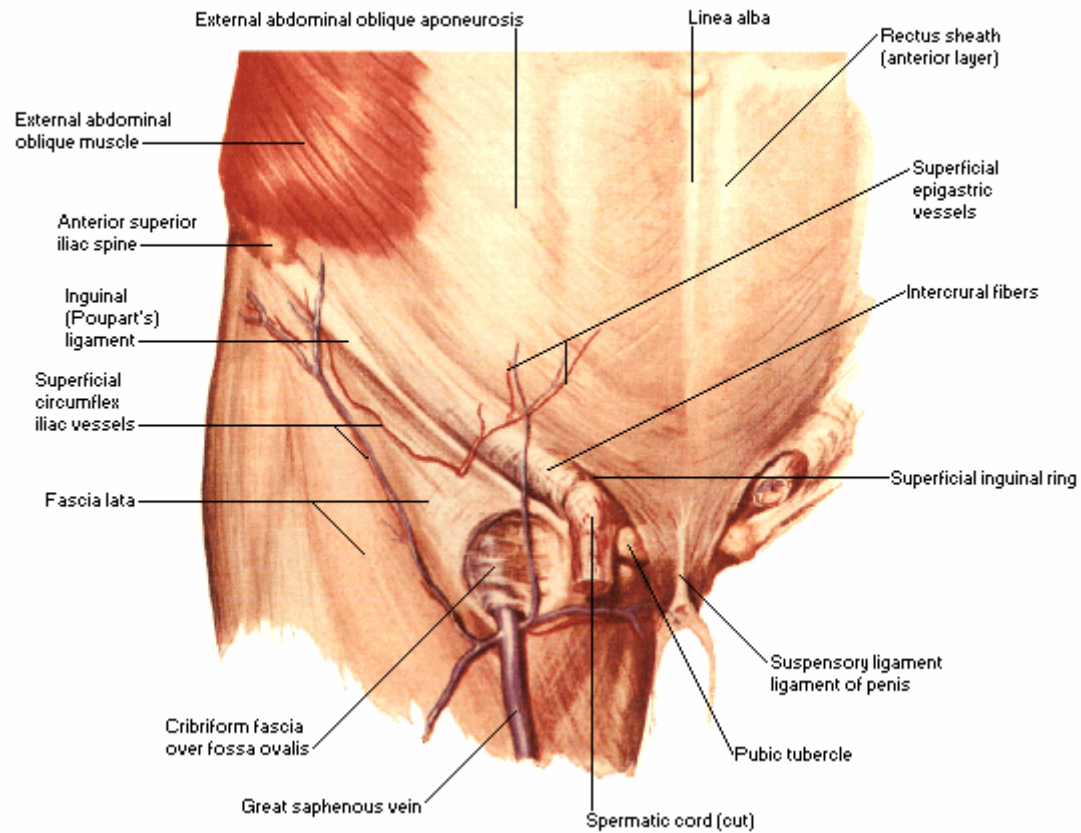




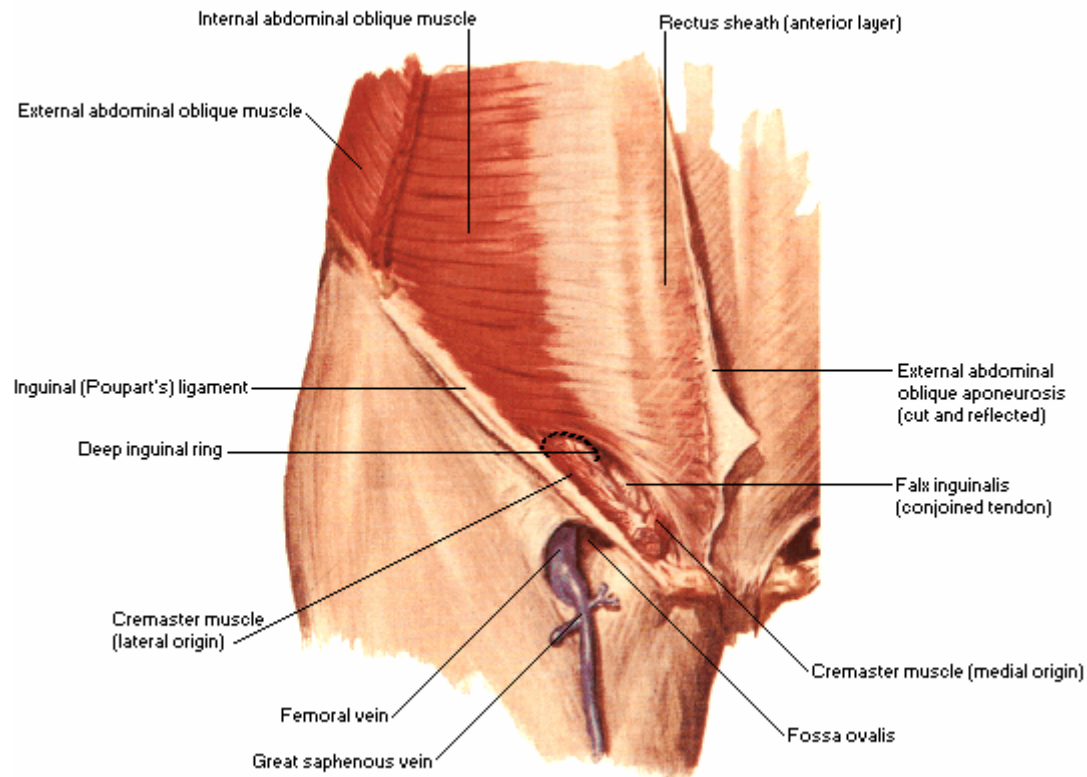




Subcutaneous Fascia Removed



Cribriform Fascia Removed



This anatomical diagram illustrates the male inguinal region, highlighting the structures that form the inguinal canal and the associated ligaments and muscles. The diagram shows the following structures:

- Inferior epigastric vessels (covered by transversalis fascia)**: Located at the top left, passing deep to the inguinal ligament.
- Aponeurosis of external abdominal oblique muscle**: The broad, flat sheet of muscle fibers forming the floor of the inguinal canal.
- External abdominal oblique muscle**: The muscle fibers on the left side of the diagram.
- Anterior superior iliac spine**: A bony landmark on the left iliac crest.
- Transversus abdominis muscle**: The muscle fibers in the center, passing deep to the inguinal ligament.
- Cremaster muscle (lateral origin)**: The lateral part of the muscle fibers originating from the femoral sheath.
- Inguinal (Poupart's) ligament**: The ligament connecting the anterior superior iliac spine to the pubic tubercle.
- Lacunar (Gimbernat's) ligament**: A small ligament connecting the inguinal ligament to the pubic tubercle.
- Pectineal (Cooper's) ligament**: A ligament connecting the inguinal ligament to the pubic crest.
- Reflected inguinal ligament**: The part of the inguinal ligament that reflects back to form the floor of the femoral canal.
- Lateral crus**: The lateral part of the cremaster muscle fibers.
- Superficial inguinal ring**: The opening in the external oblique aponeurosis through which the spermatic cord passes.
- Fundiform ligament of penis**: A ligament connecting the superficial inguinal ring to the pubic crest.
- Pubic crest**: The bony landmark on the right side of the diagram.
- Internal abdominal oblique muscle**: The muscle fibers on the right side of the diagram.
- Rectus sheath (anterior layer)**: The anterior layer of the rectus abdominis muscle sheath.
- Linea alba**: The midline of the abdomen.
- Transversalis fascia (site of direct inguinal hernia)**: The fascia covering the anterior surface of the transversus abdominis muscle.
- Falk inguinalis (conjoined tendon)**: The conjoined tendon of the internal abdominal oblique and transversus abdominis muscles.
- Cremaster muscle (medial origin)**: The medial part of the muscle fibers originating from the femoral sheath.
- Medial crus**: The medial part of the cremaster muscle fibers.
- Intercrural fibers**: The fibers of the cremaster muscle that pass between the crura.
- External spermatic fascia on spermatic cord exiting**: The outermost layer of the spermatic cord.
- Superficial inguinal ring**: The opening in the external spermatic fascia through which the spermatic cord passes.

Internal abdominal oblique muscle

Rectus sheath (anterior layer)

—Linea alba

Transversalis fascia (site of direct inguinal hernia)

- Falx inguinalis (conjoined tendon)

Cremaster muscle
(medial origin)

- Medial crus

- Intercrural fibers

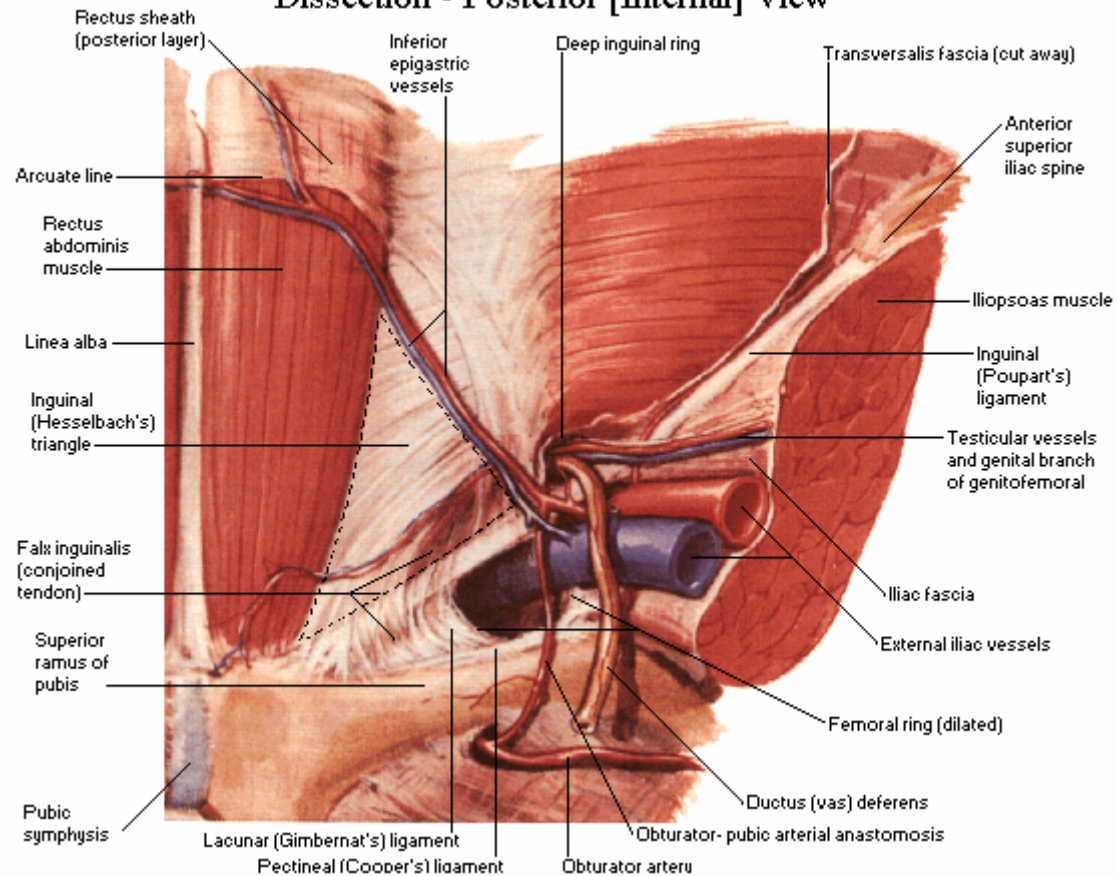
- External spermatic fascia on spermatic

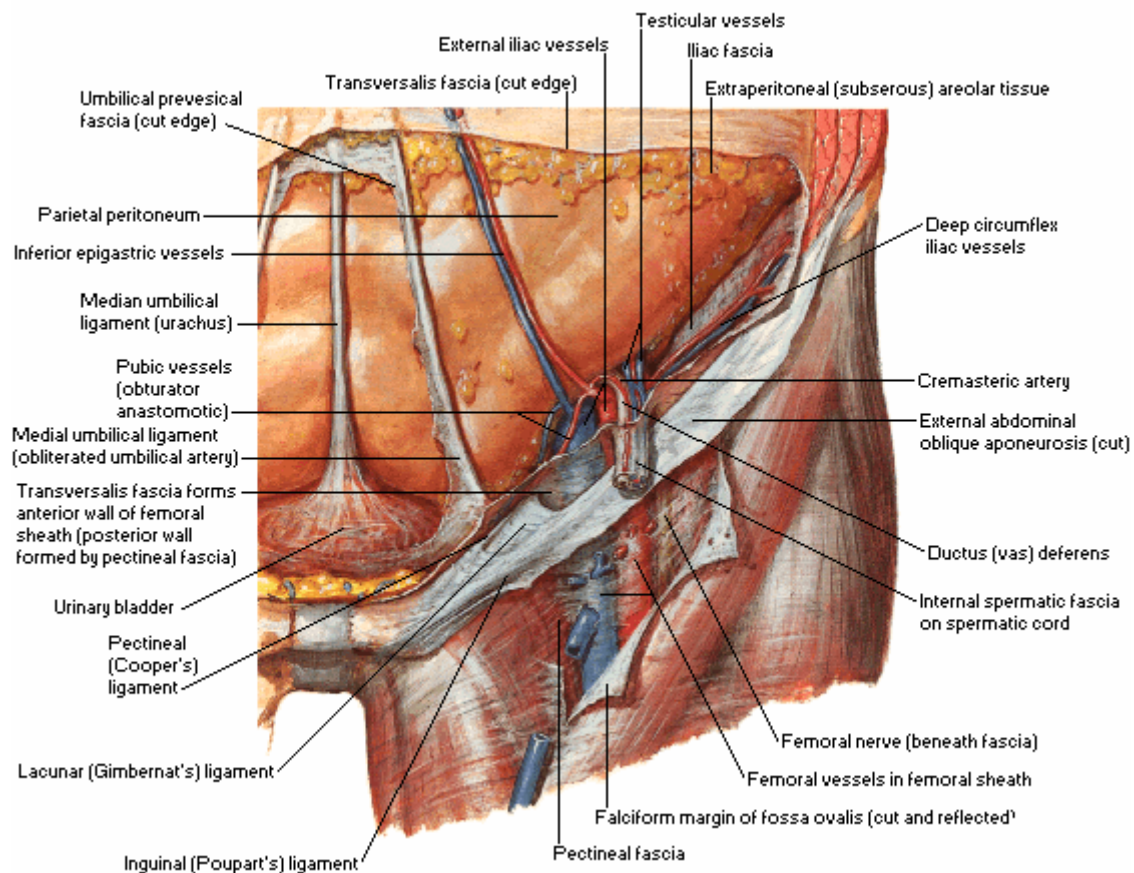
Superficial inguinal ring

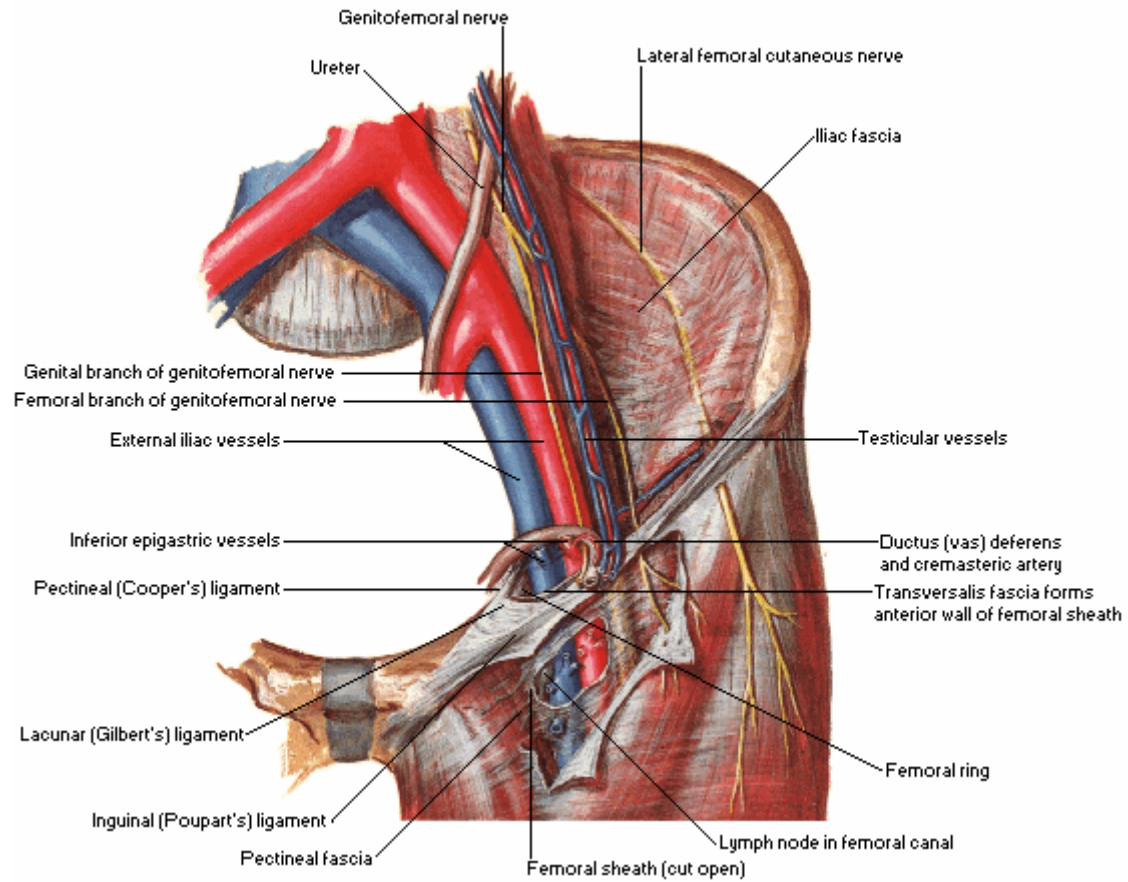
Superficial	Fundiform ligament of penis
-------------	-----------------------------

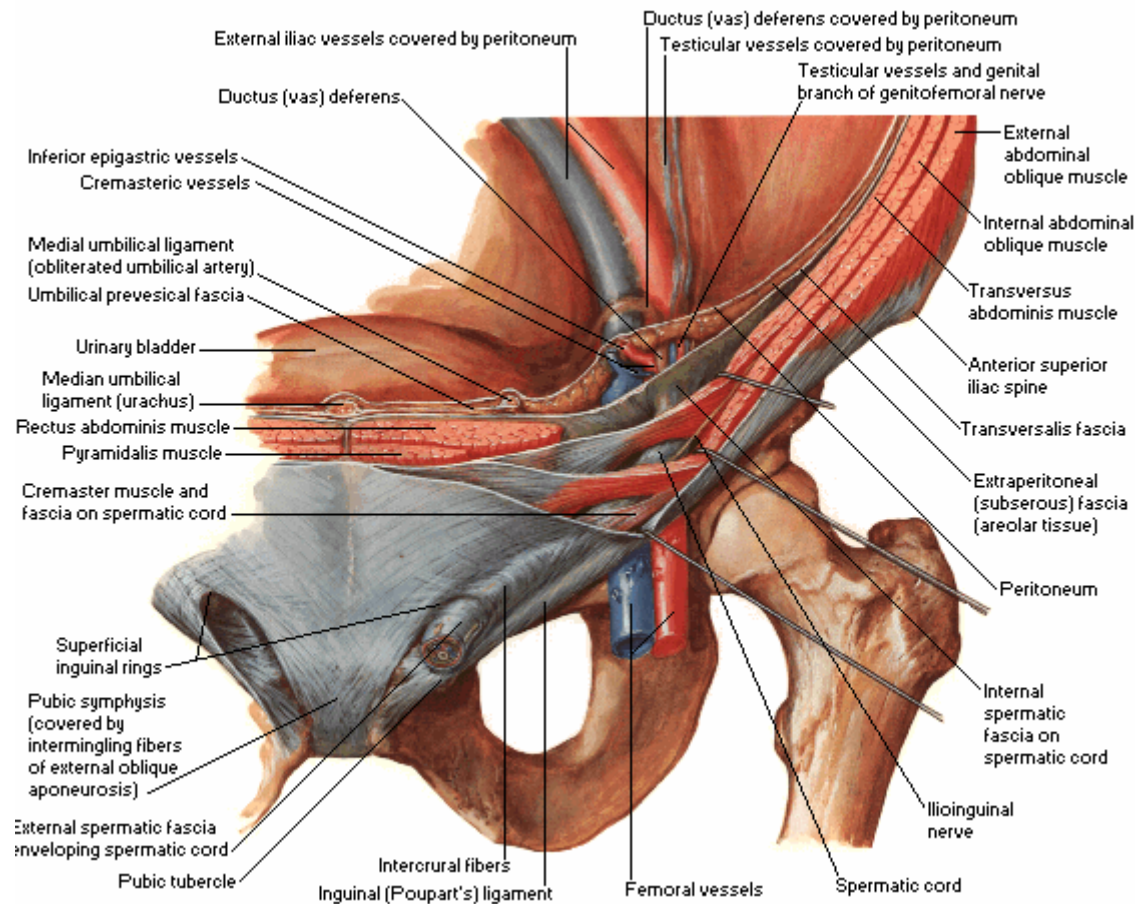
Pubic crest

Dissection - Posterior [Internal] View

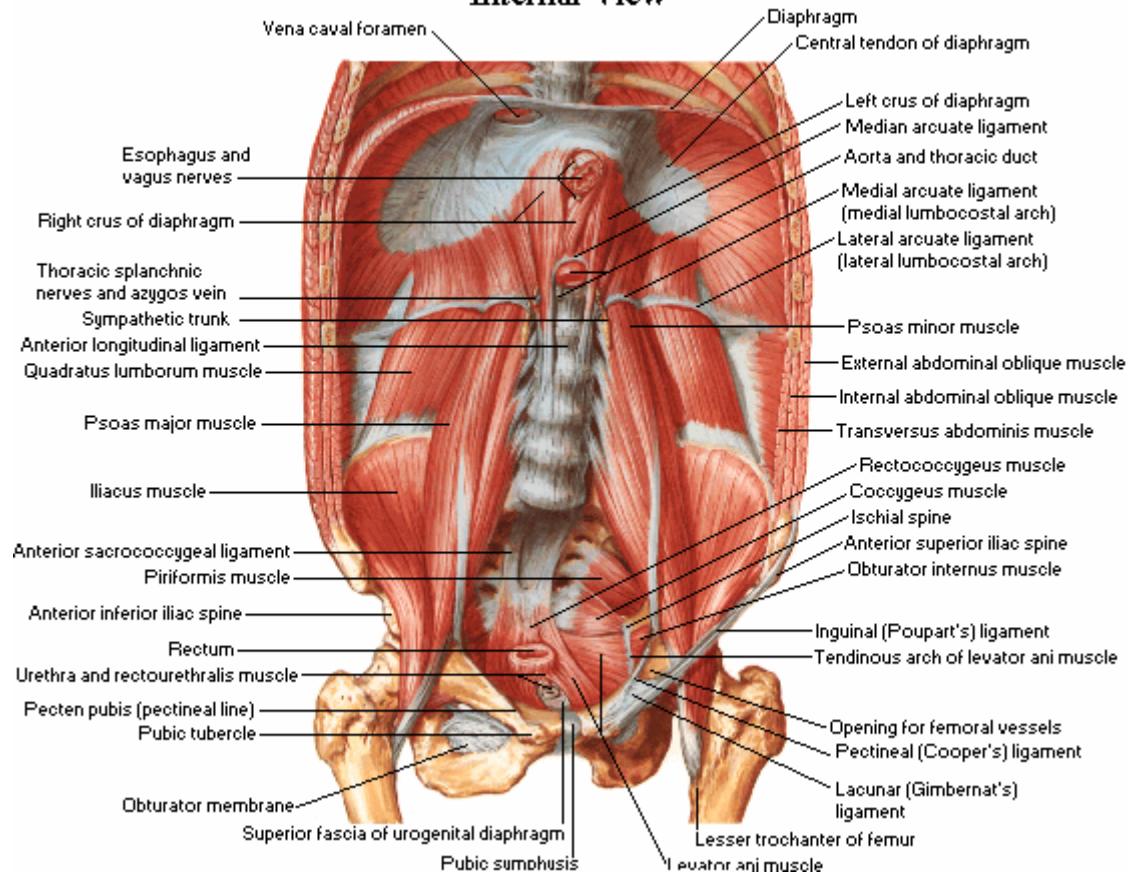


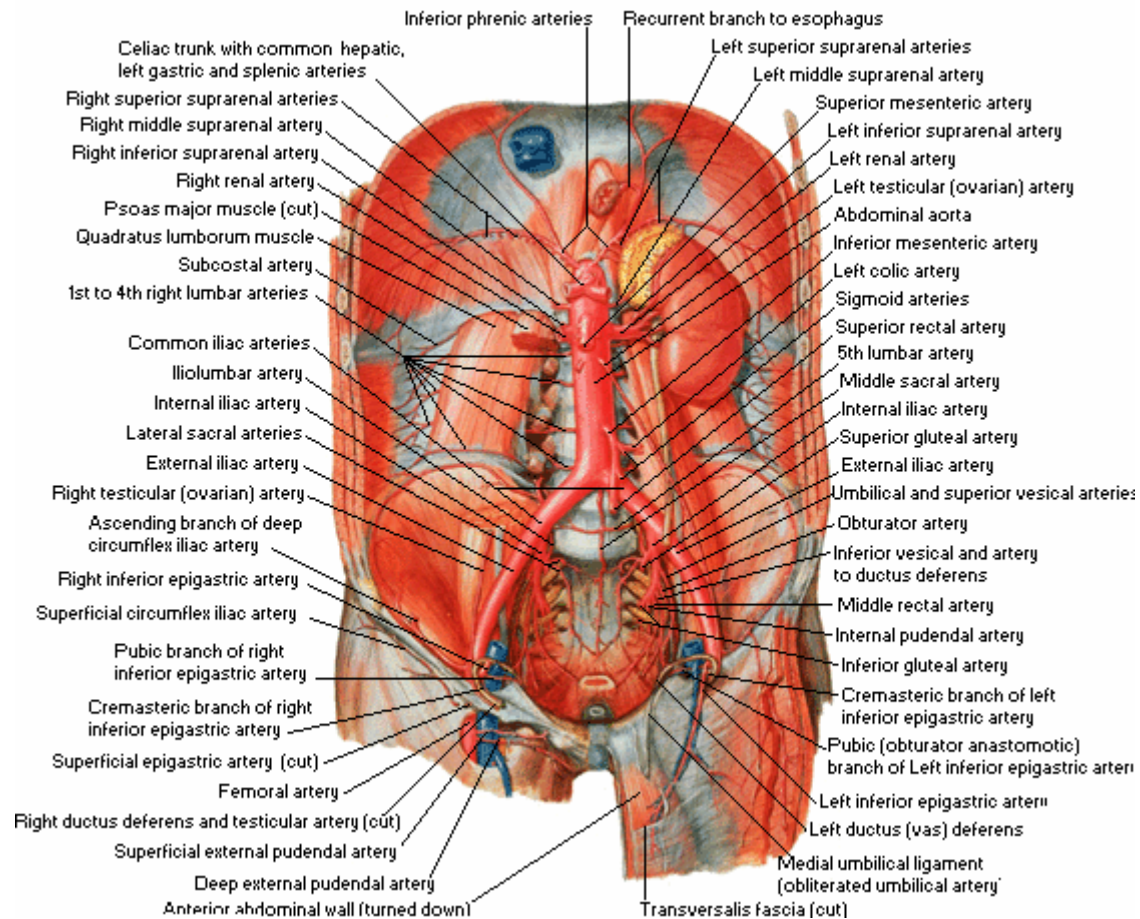


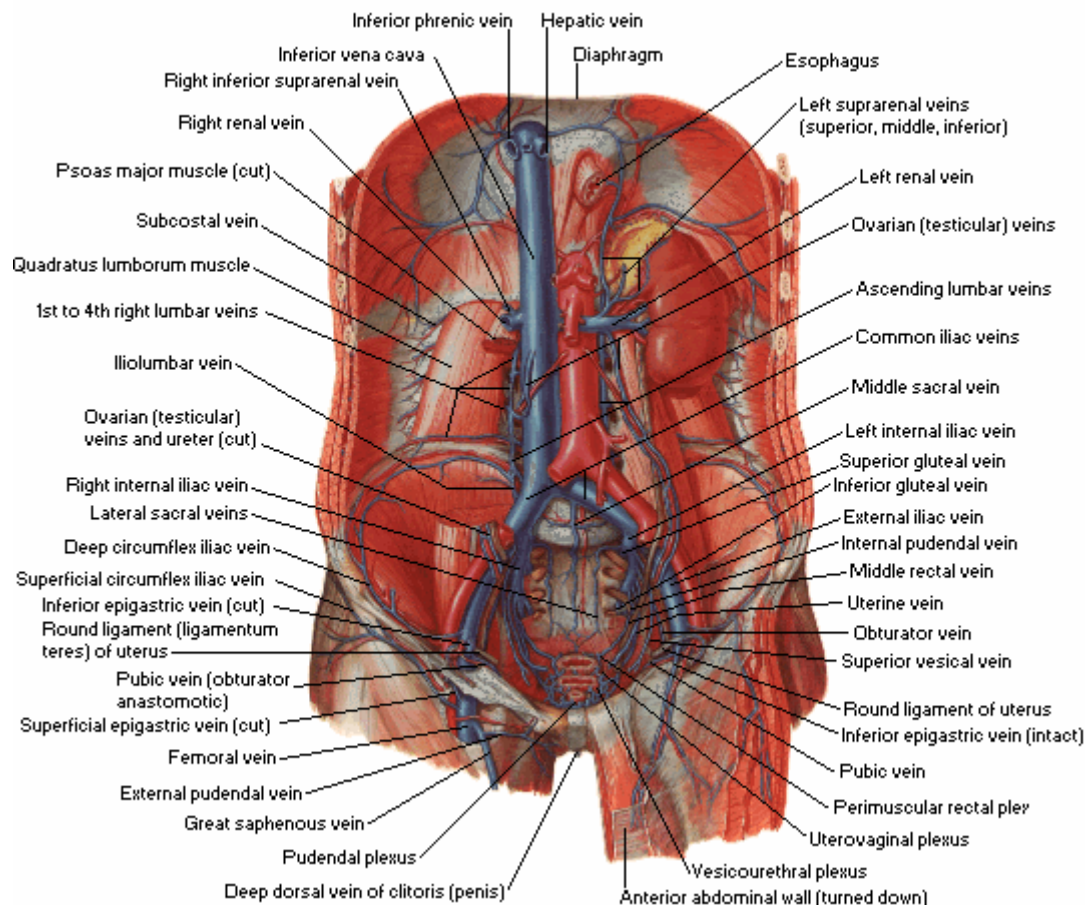


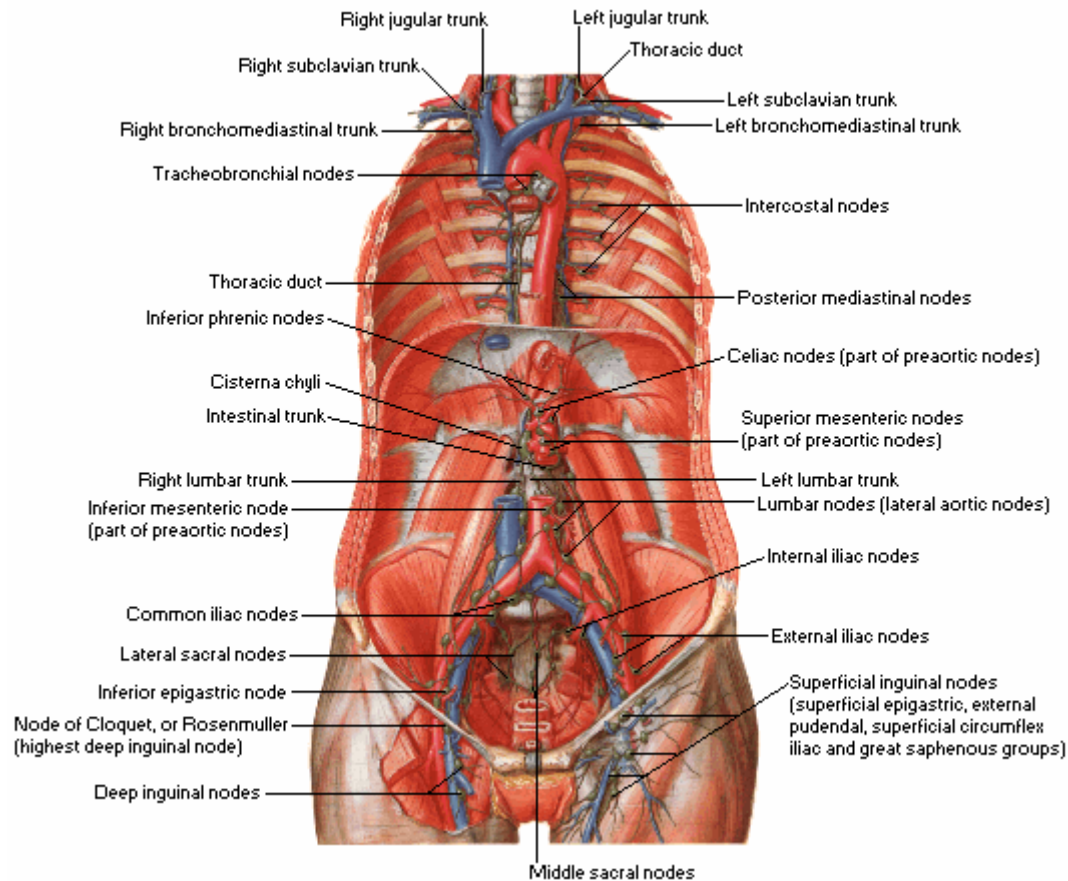


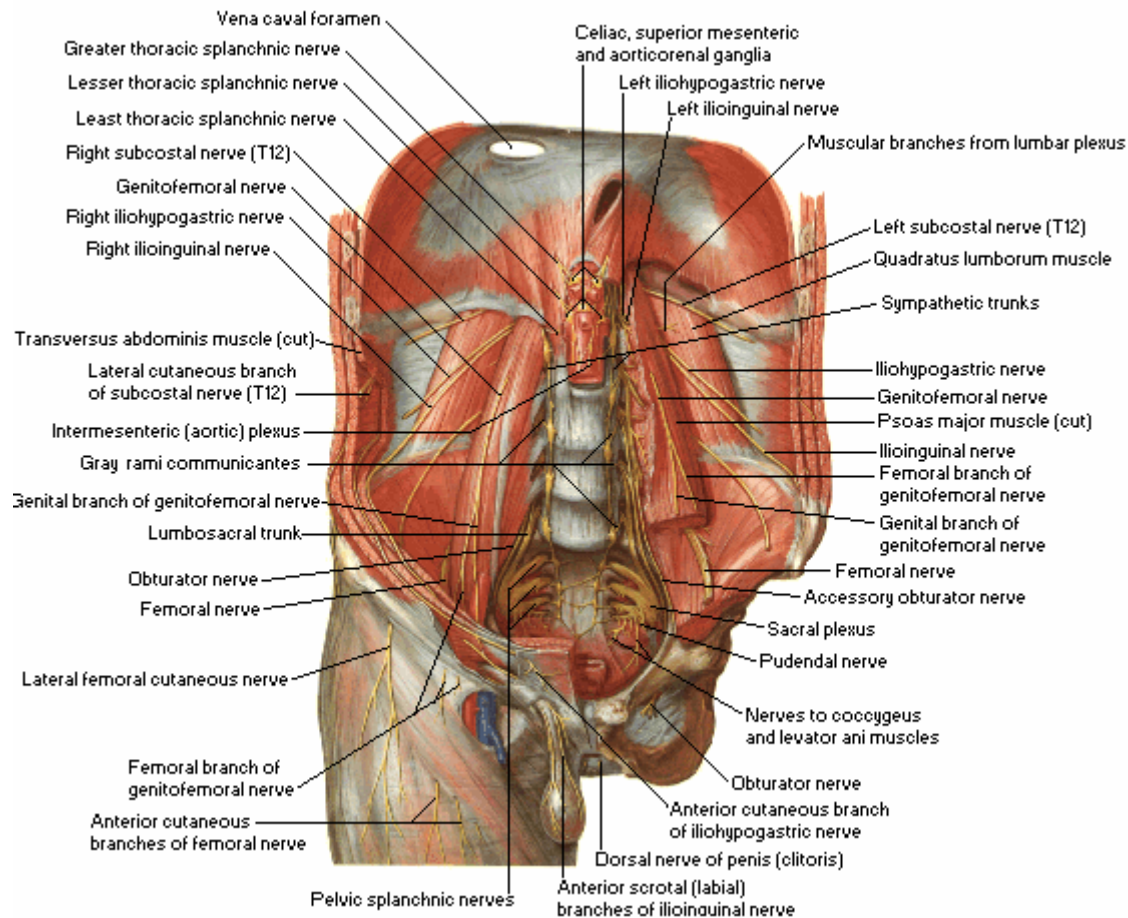
Internal View

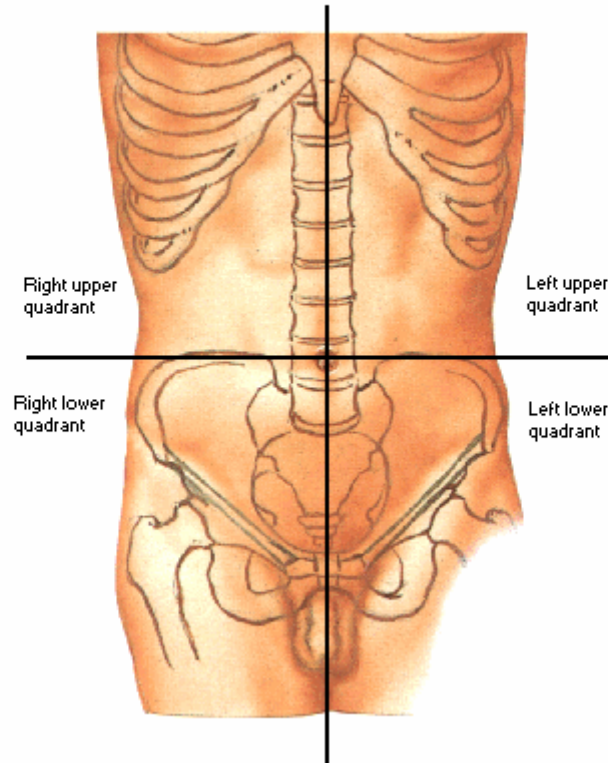


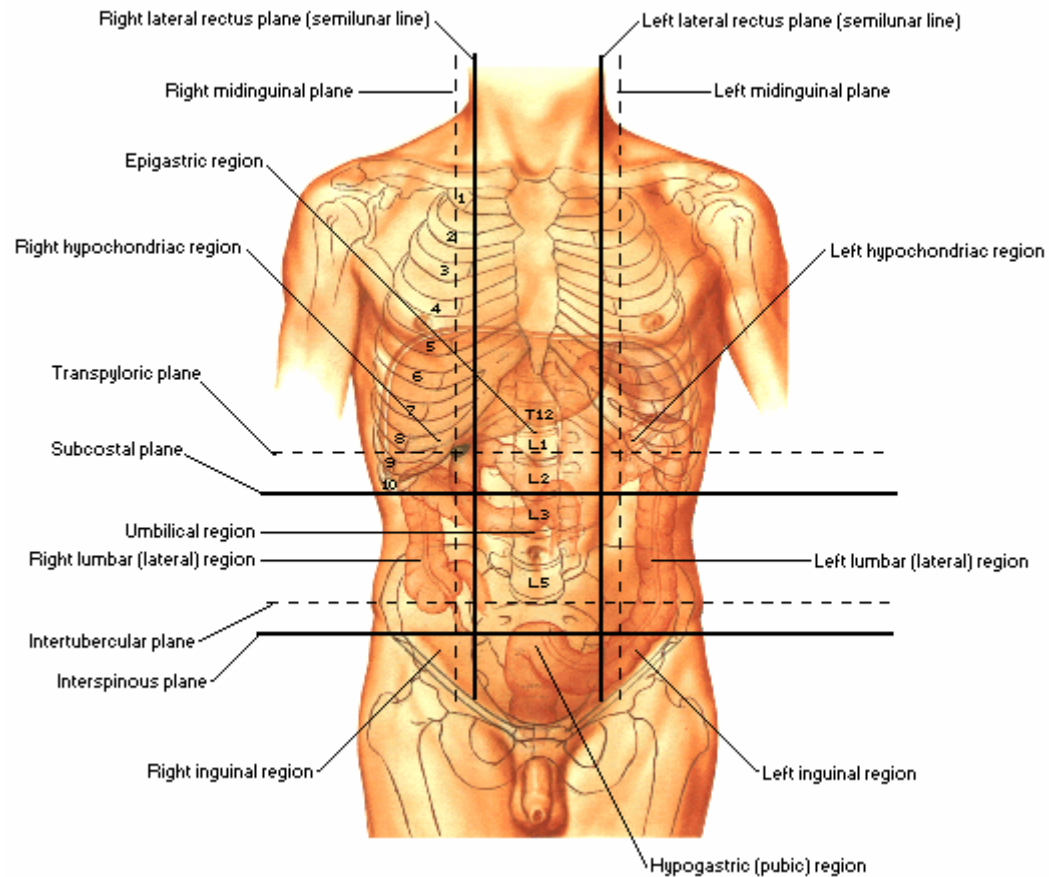


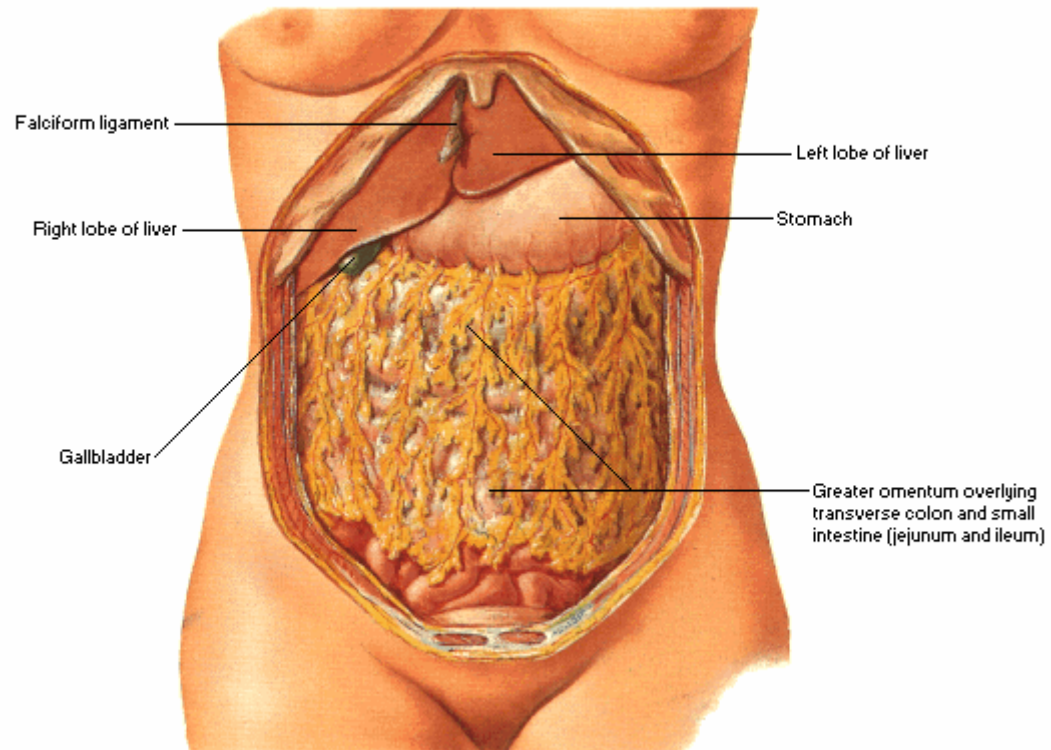




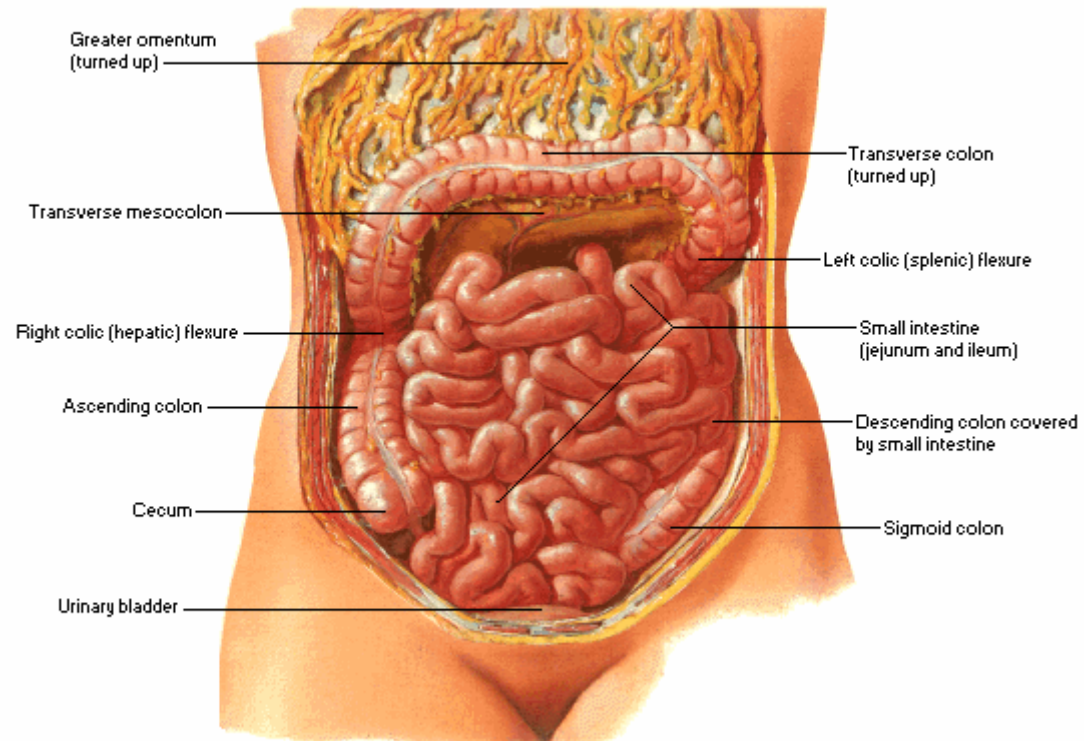




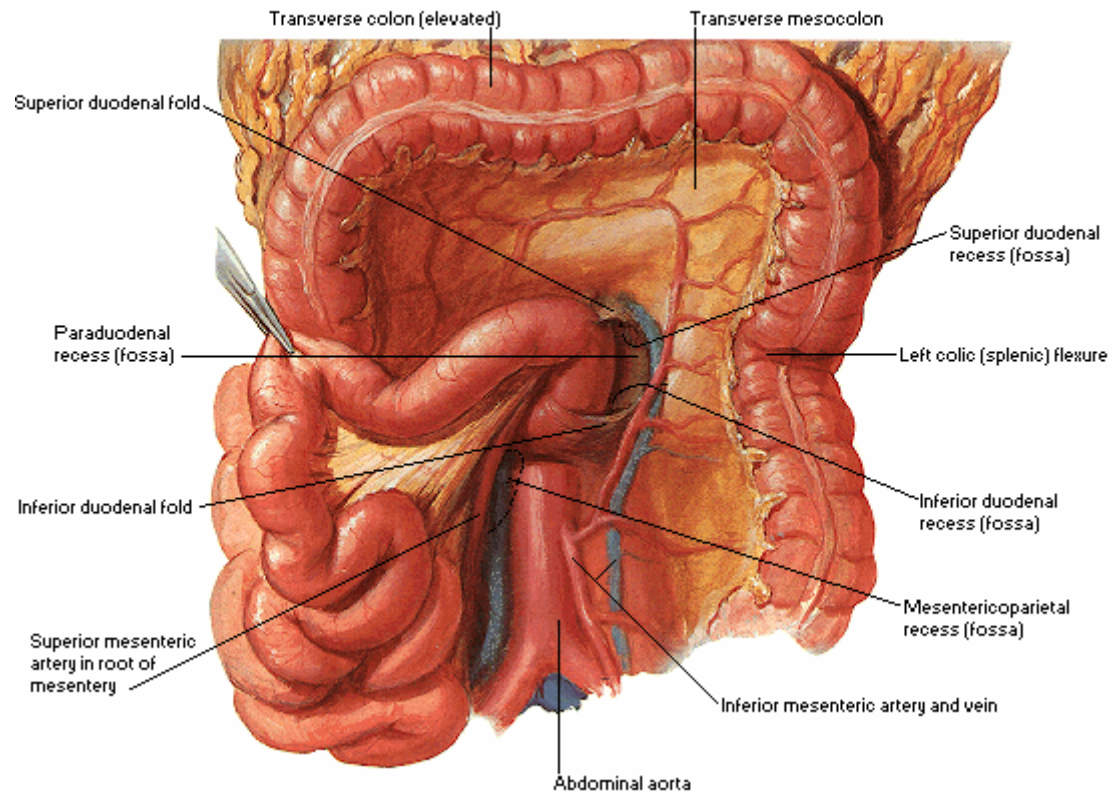




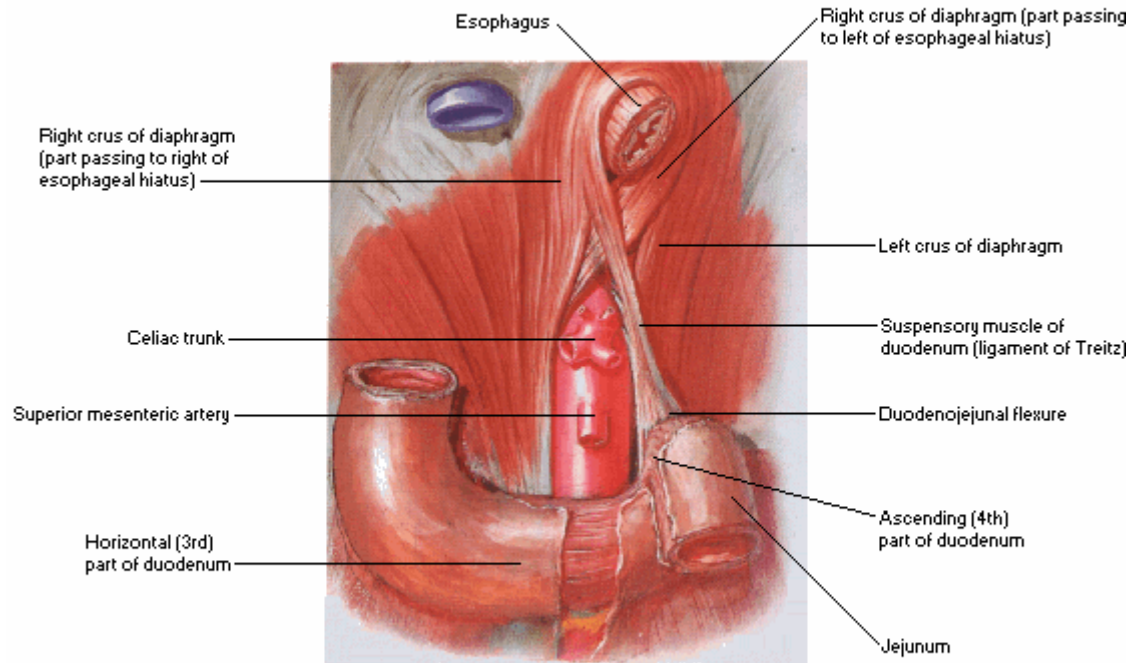
Omentum Raised



Transverse Colon Elevated

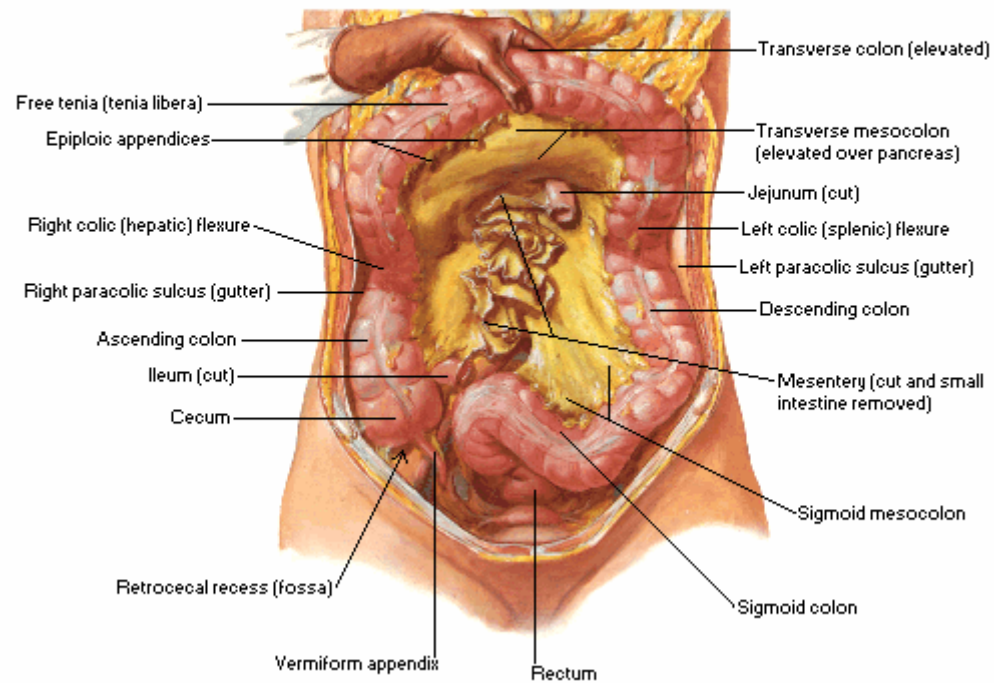


Suspensory Muscle of Duodenum

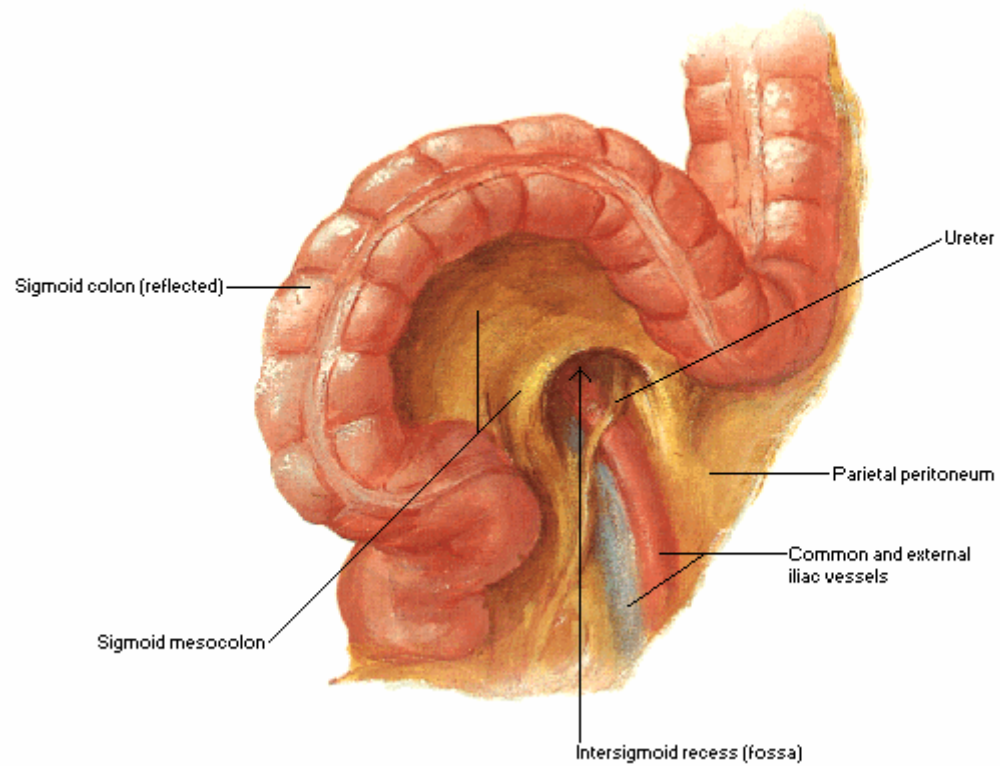


Exposure of suspensory muscle of duodenum (ligament of Treitz)

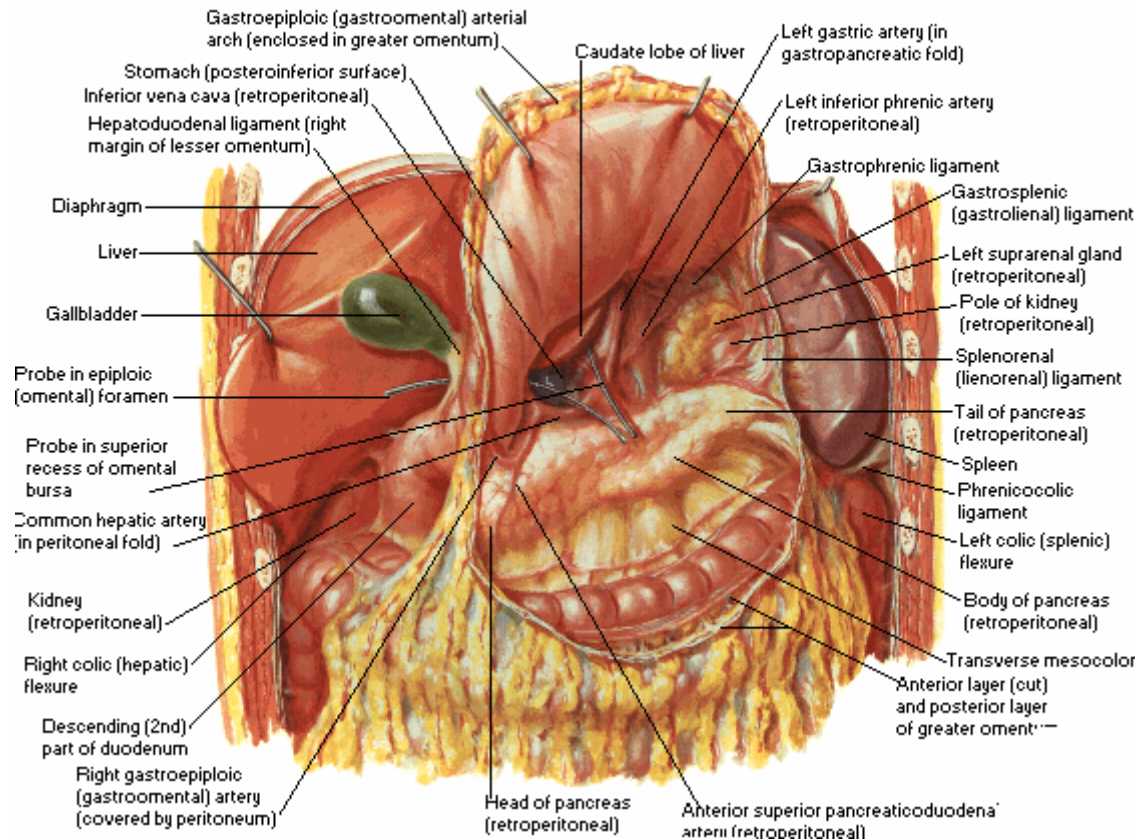
Small Intestine Removed



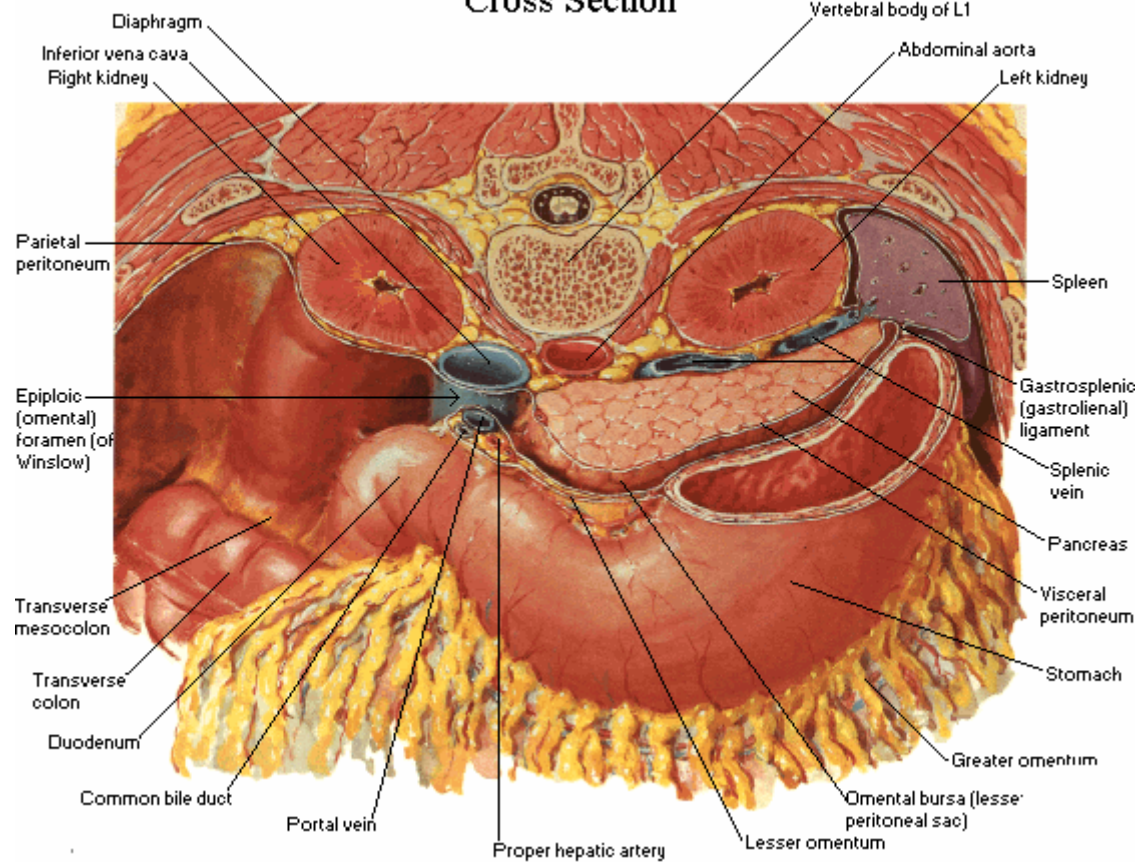
Sigmoid Colon Reflected

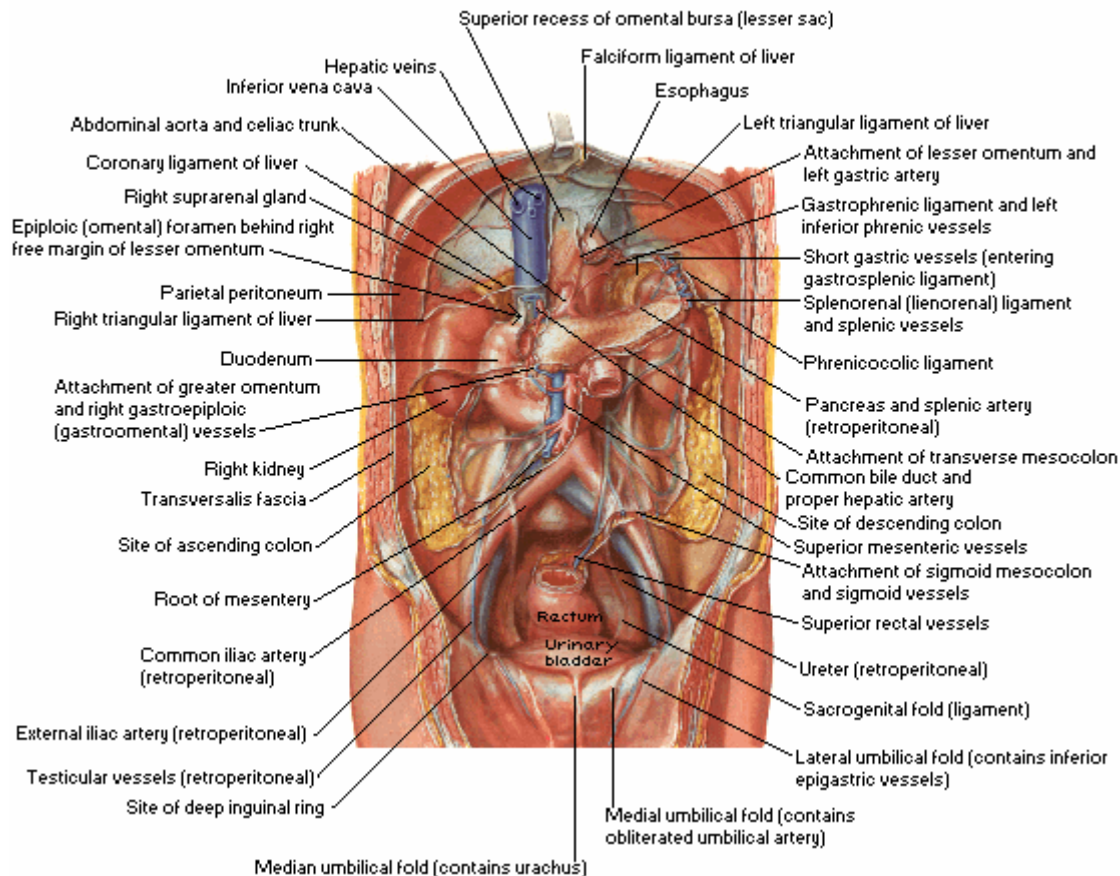


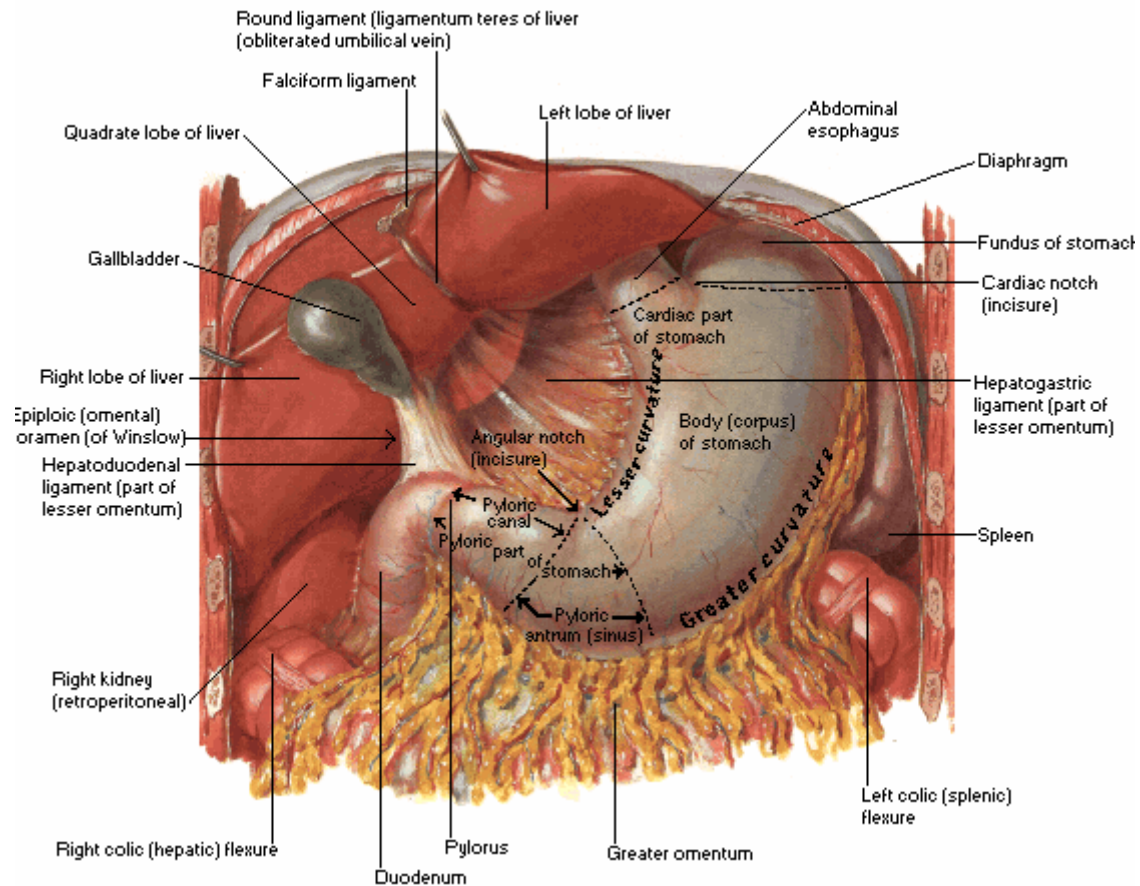
Stomach Reflected



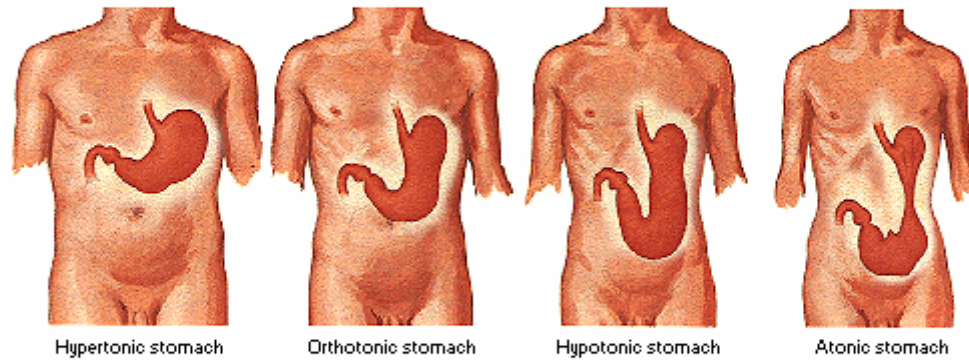
Cross Section



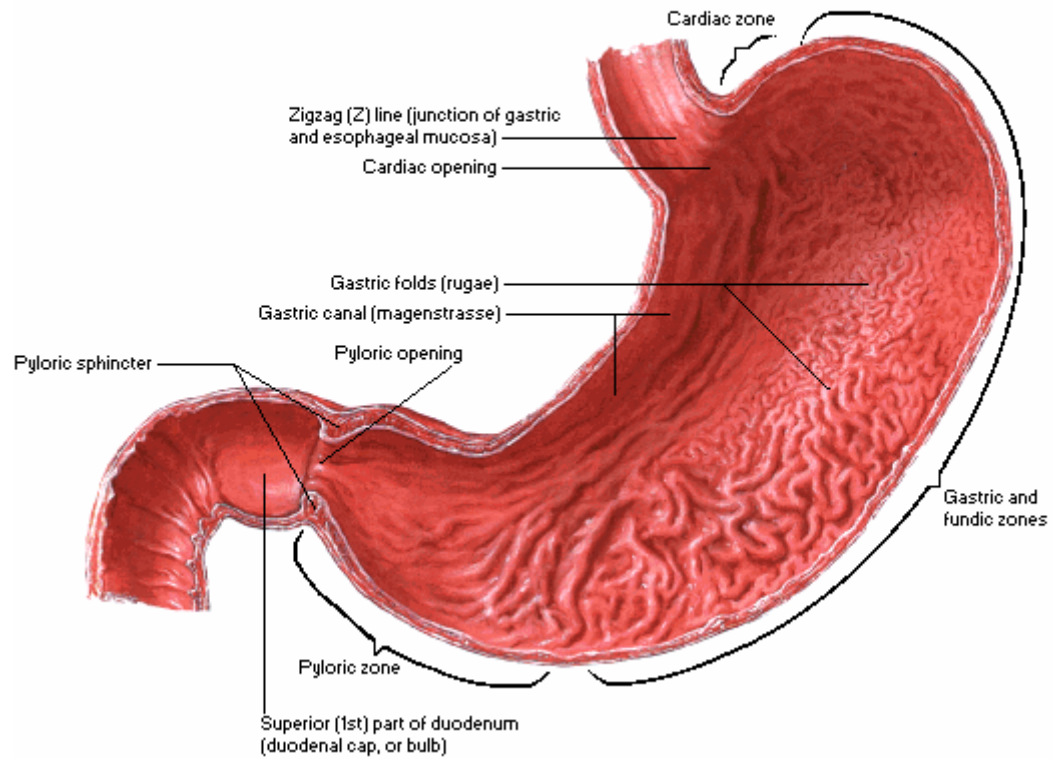




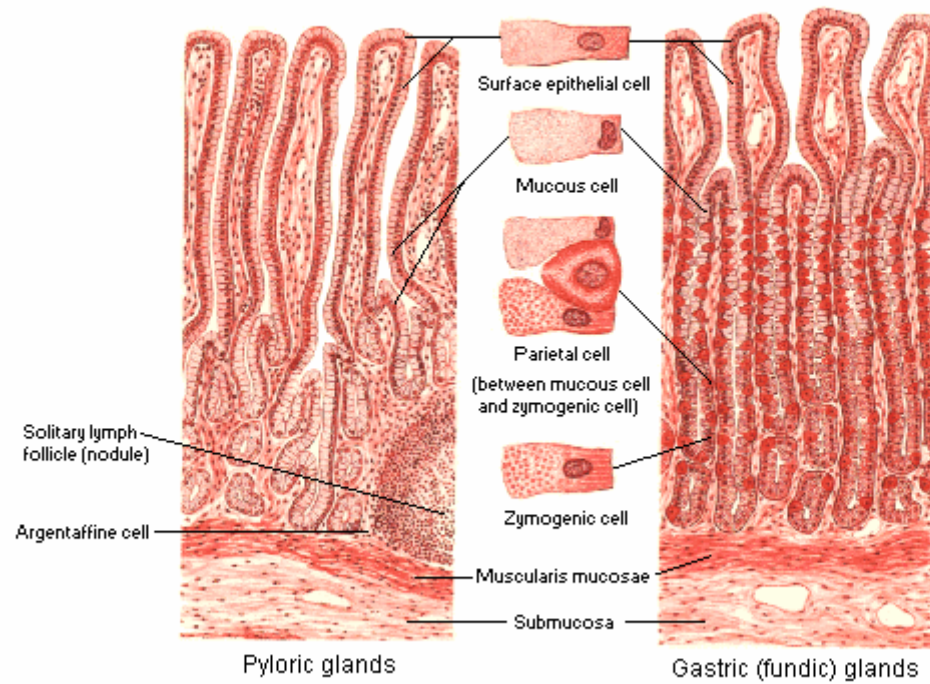
Variations in Position and Contour

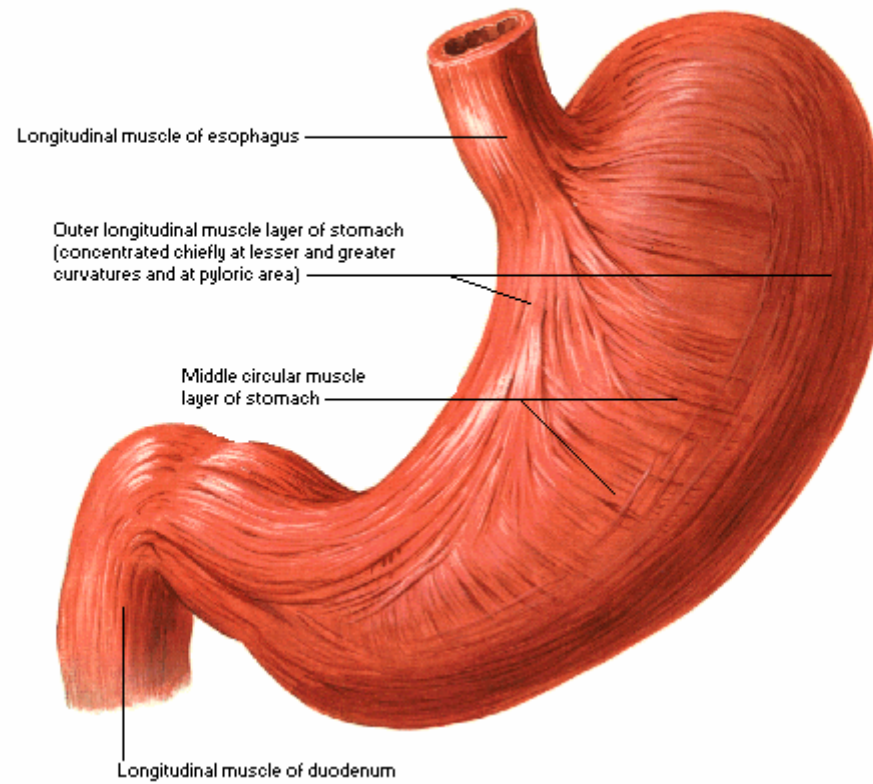


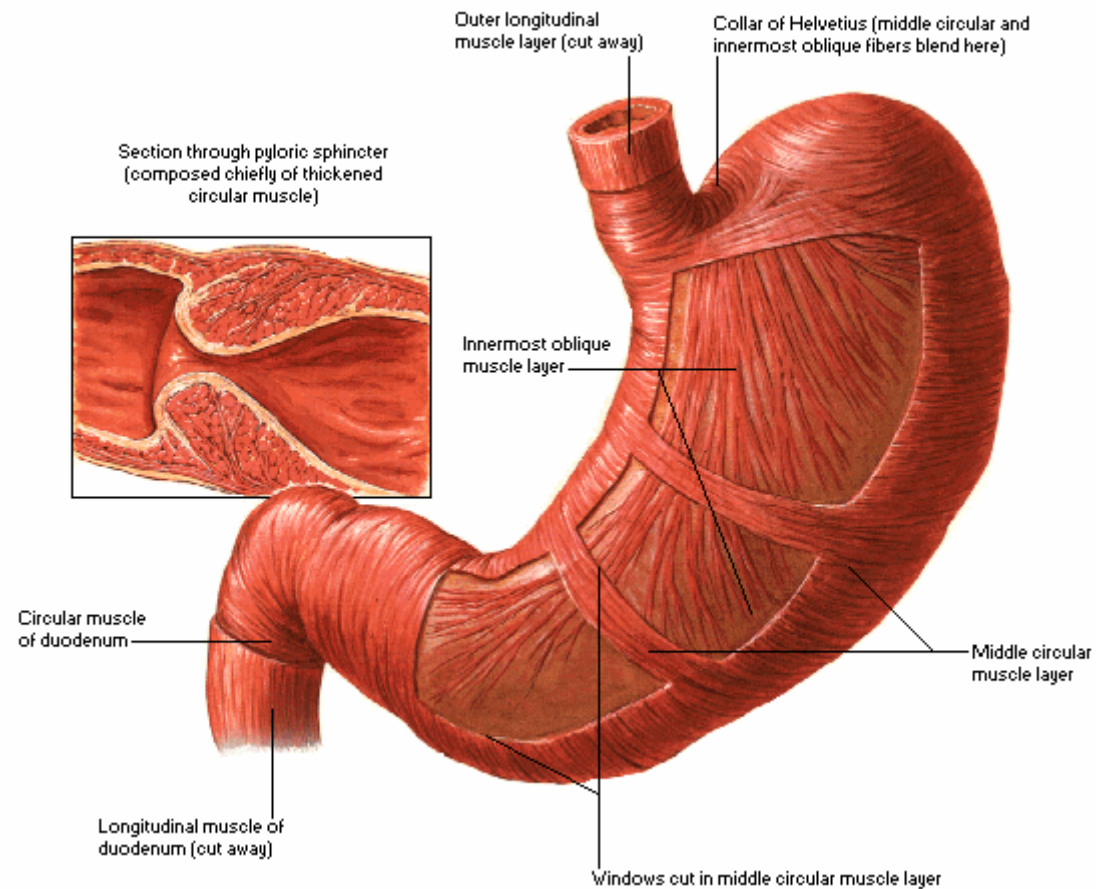
Variations of stomach in relation to body habitus

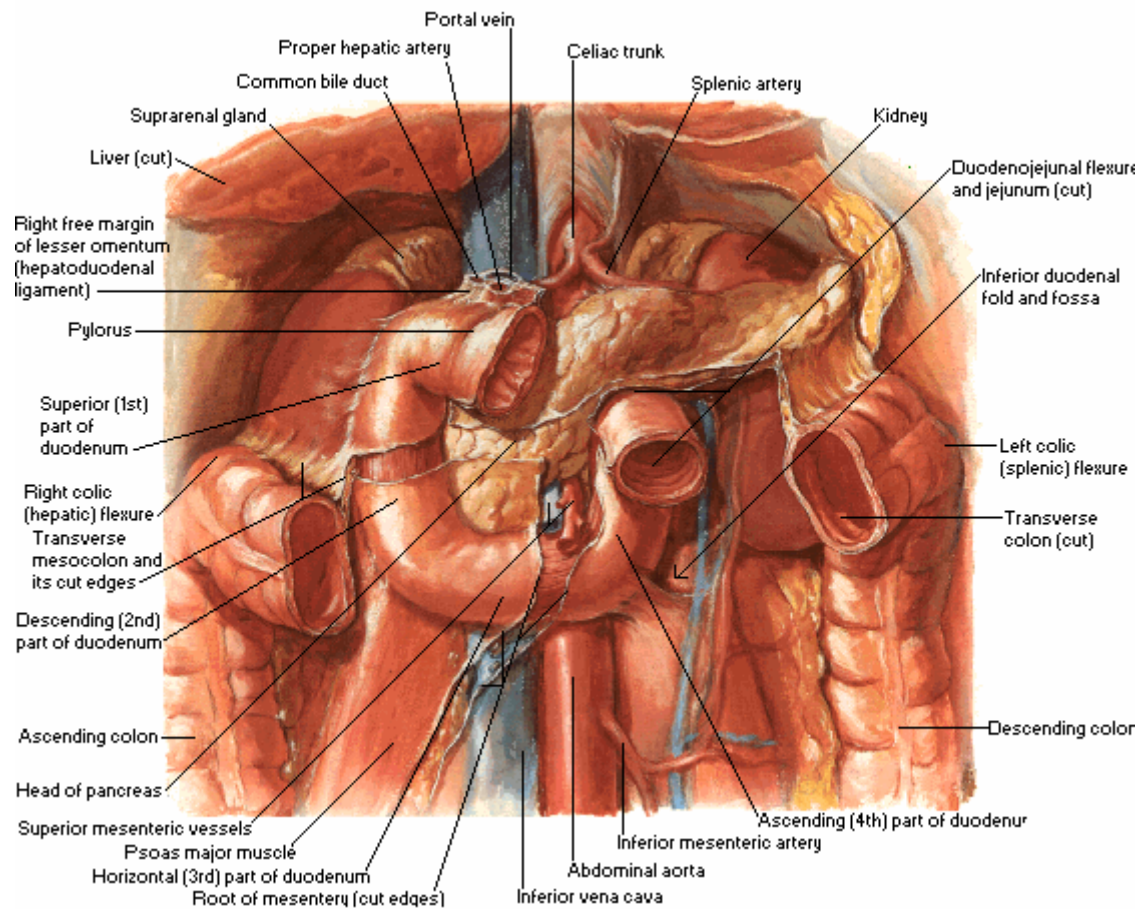


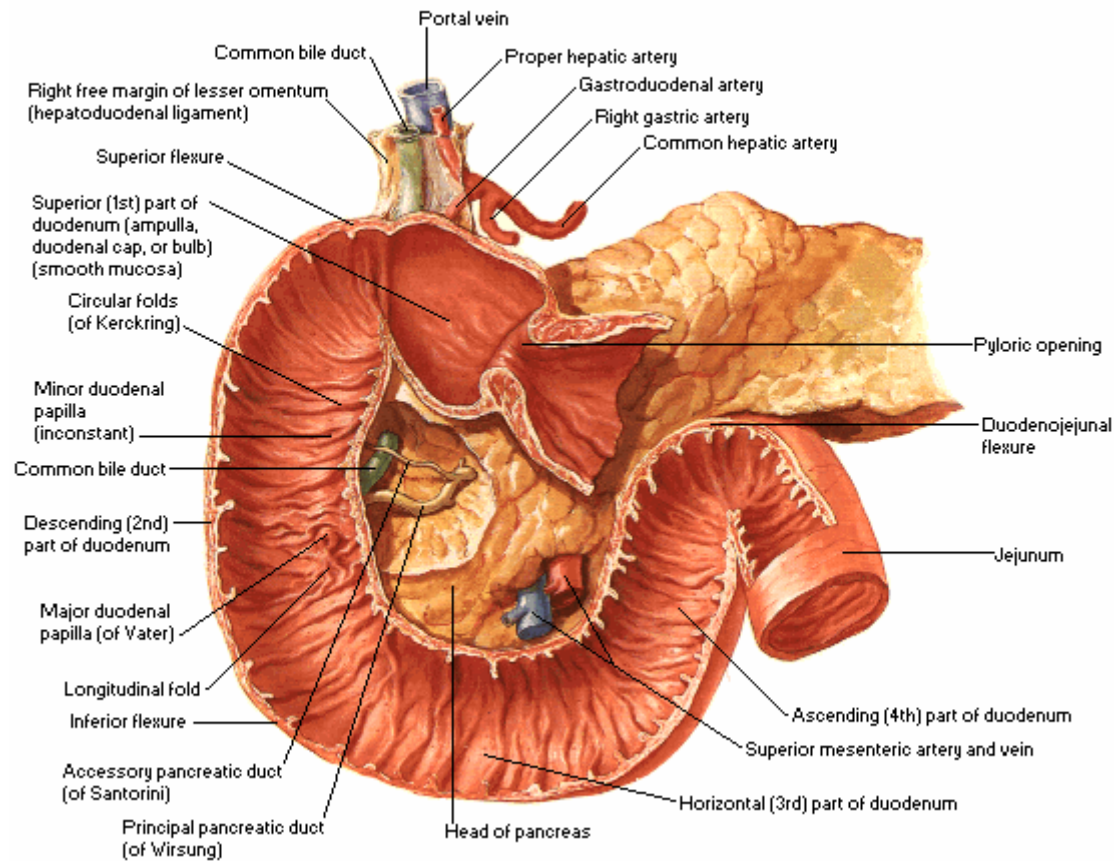
Histology









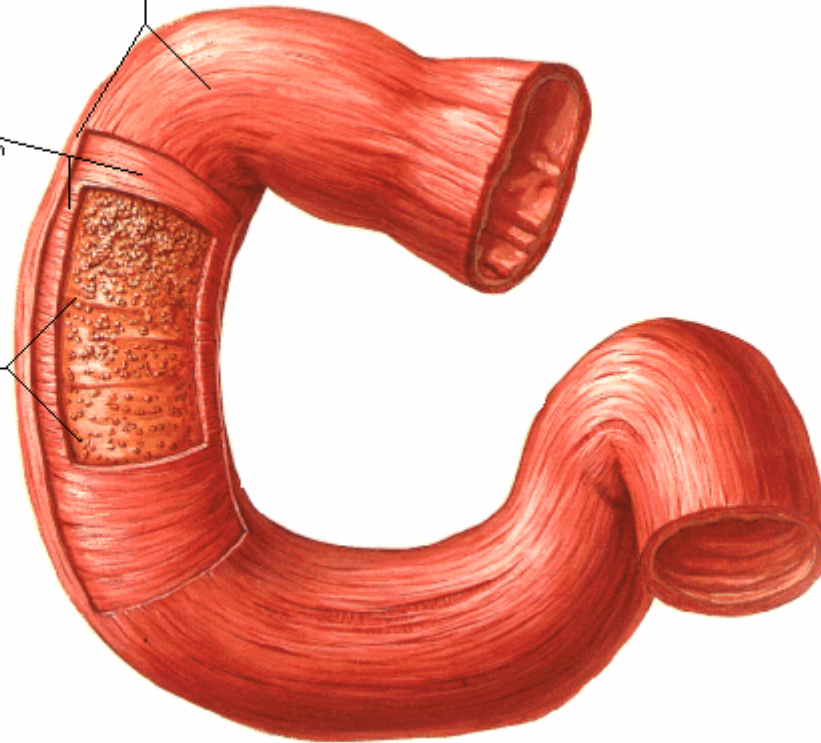


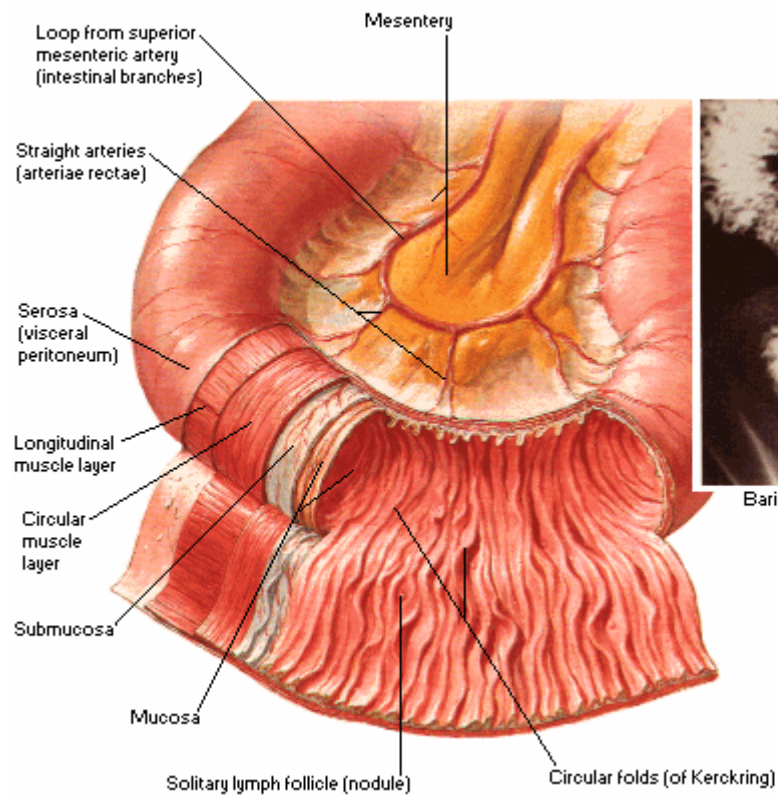
Layers of Wall

Outer longitudinal muscle layer
(with window cut)

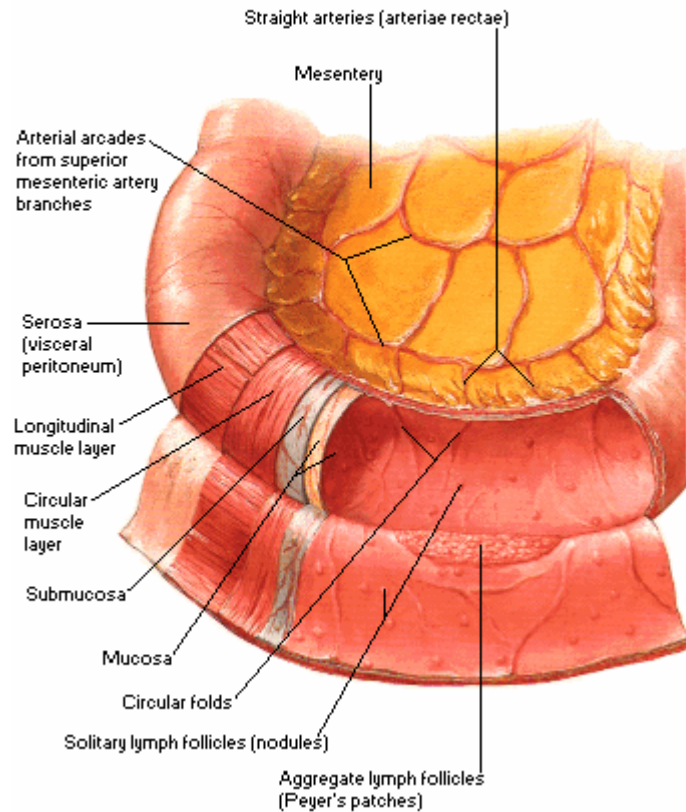
Inner circular
muscle layer (with
window cut)

Submucosa
with duodenal
(Brunner's)
glands

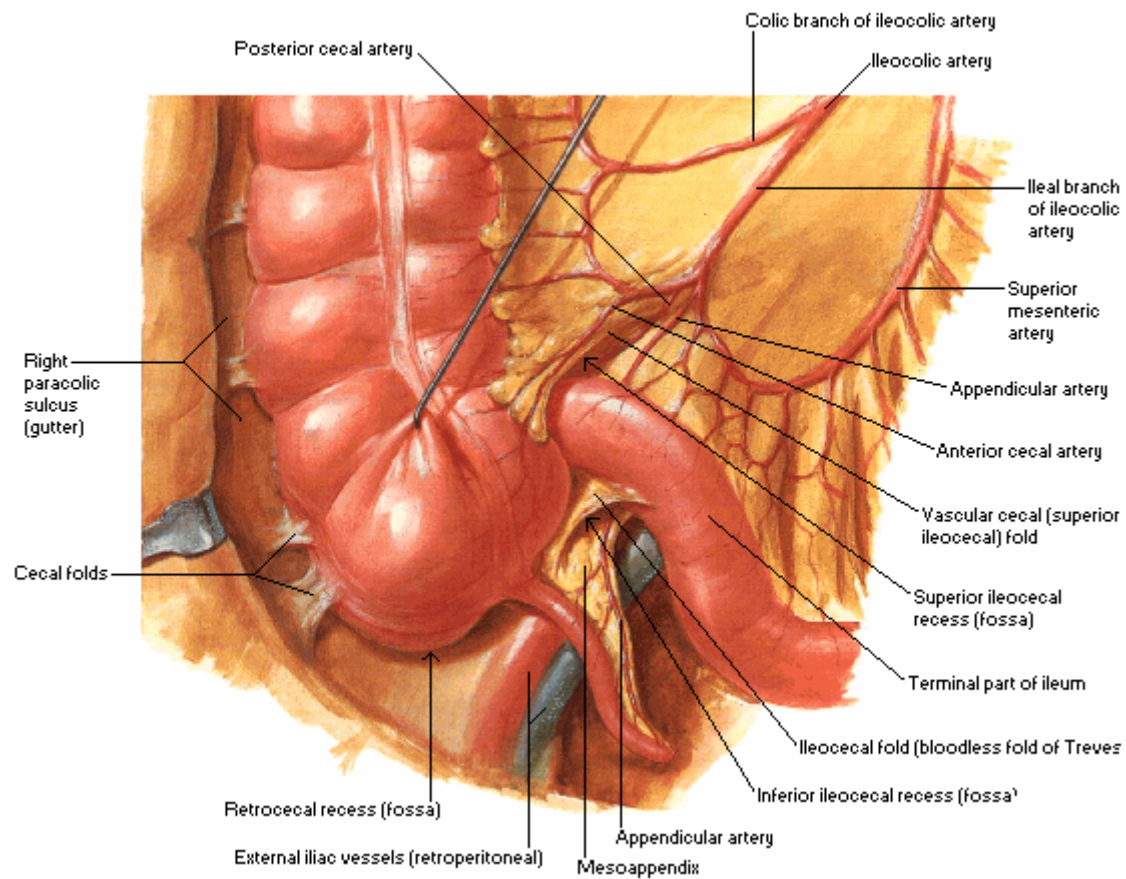




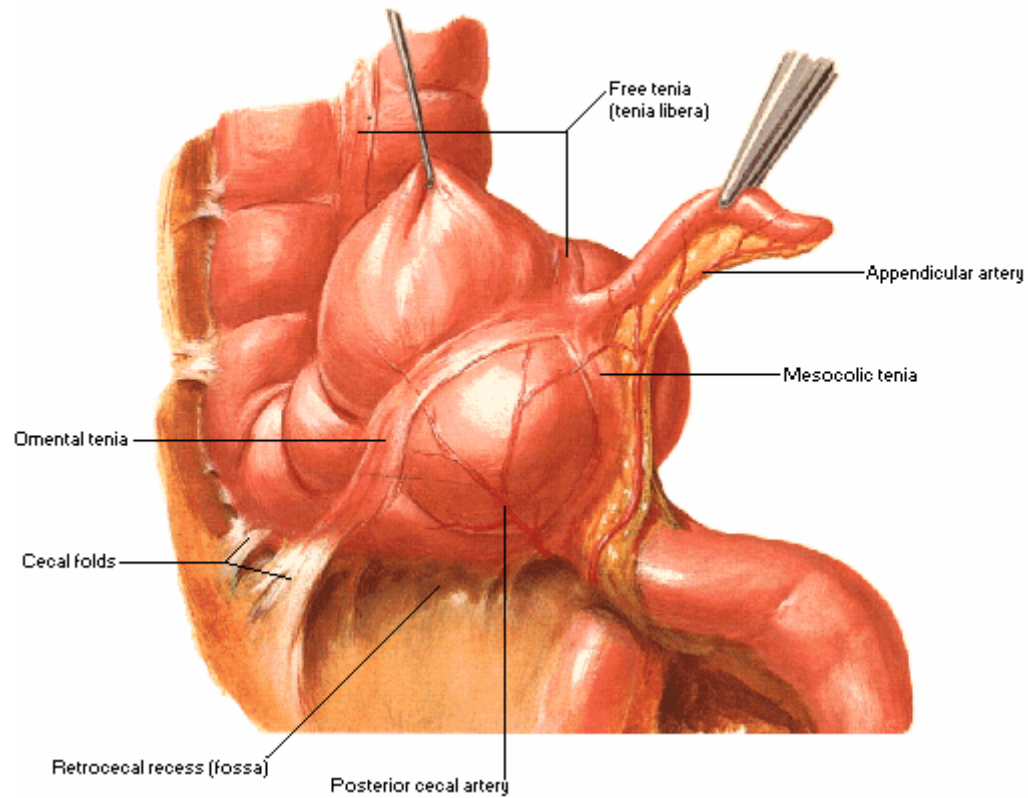
Barium radiograph of jejunum



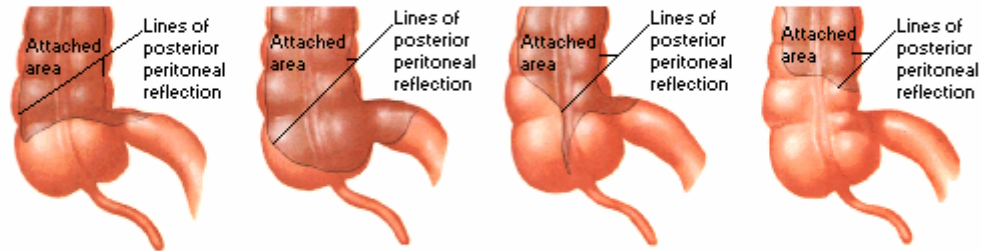
Barium radiograph of ileum



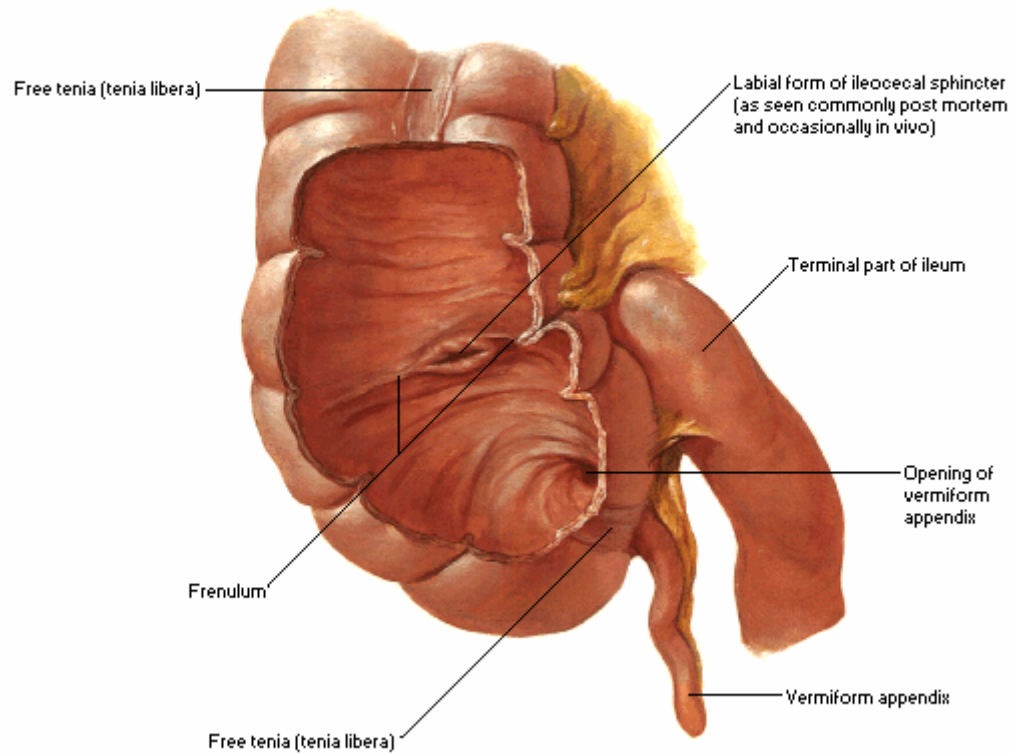
Retrocecal Recess Exposed



Variations in Posterior Peritoneal Attachment

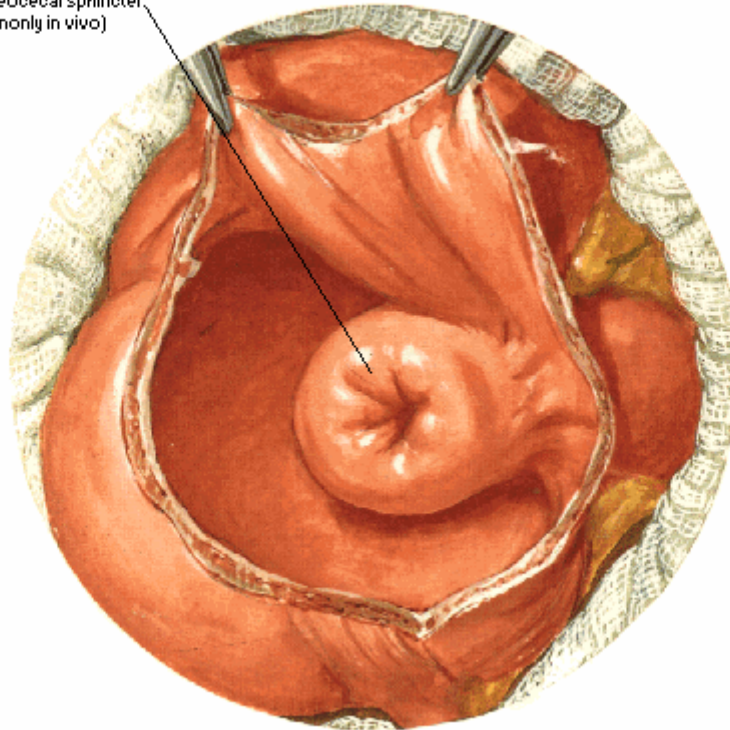


Labial Form of Ileocecal Sphincter

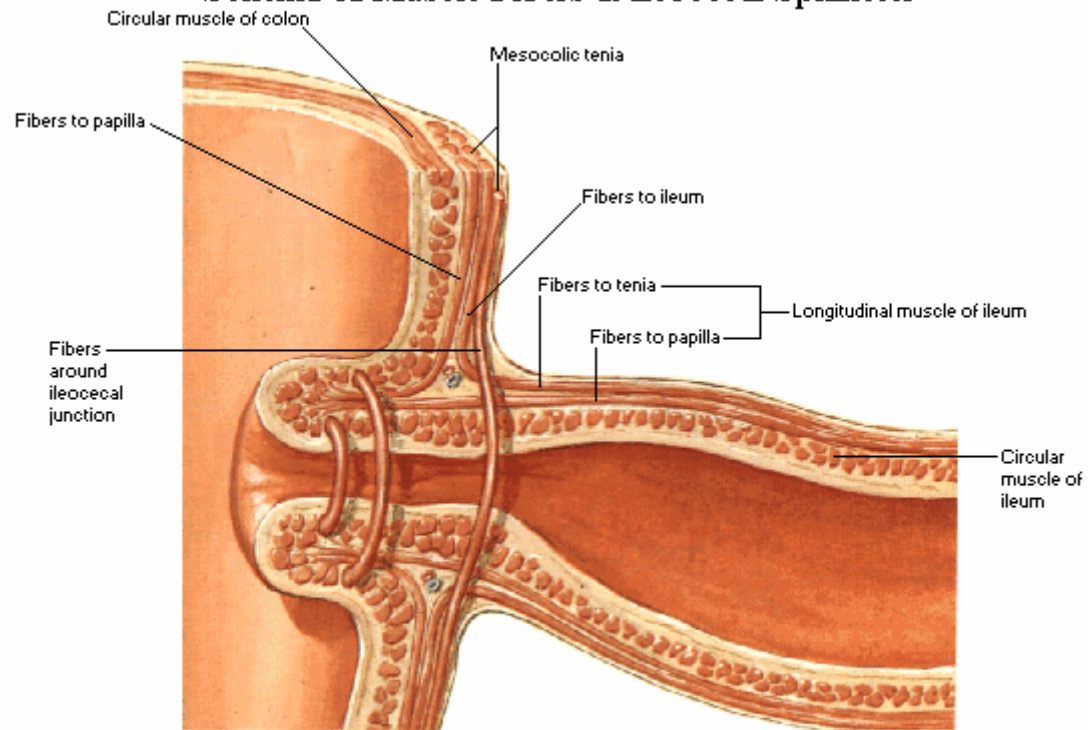


Papillary Form of Ileocecal Sphincter

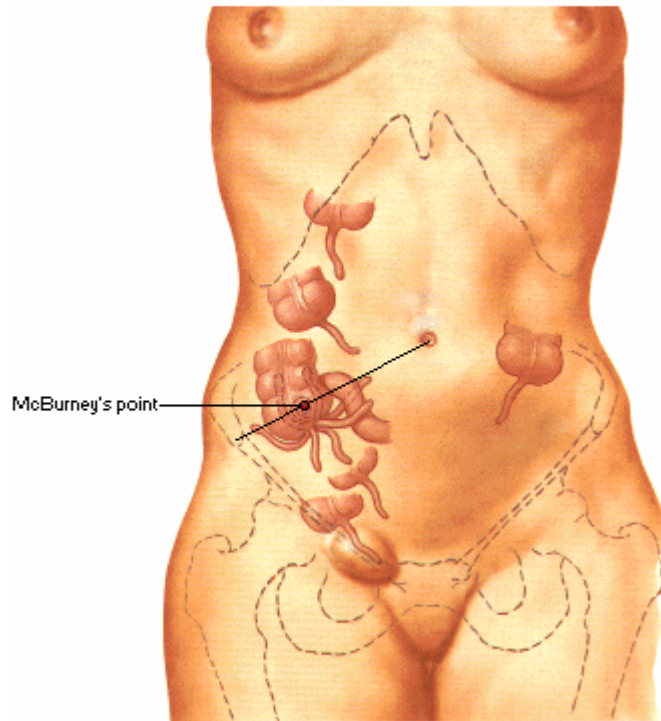
Papillary form of ileocecal sphincter.
(found most commonly in vivo)



Schema of Muscle Fibers at Ileocecal Sphincter

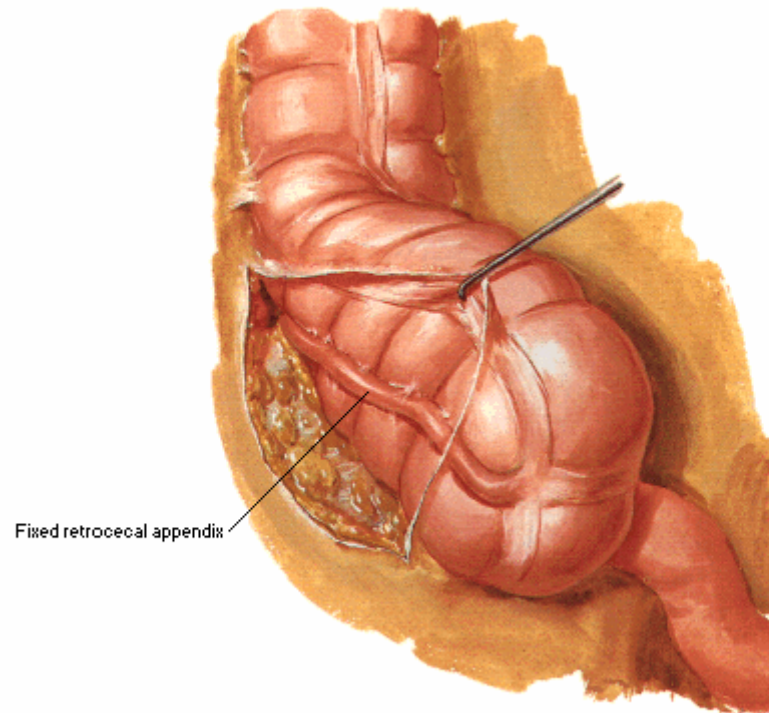


Variations in Position

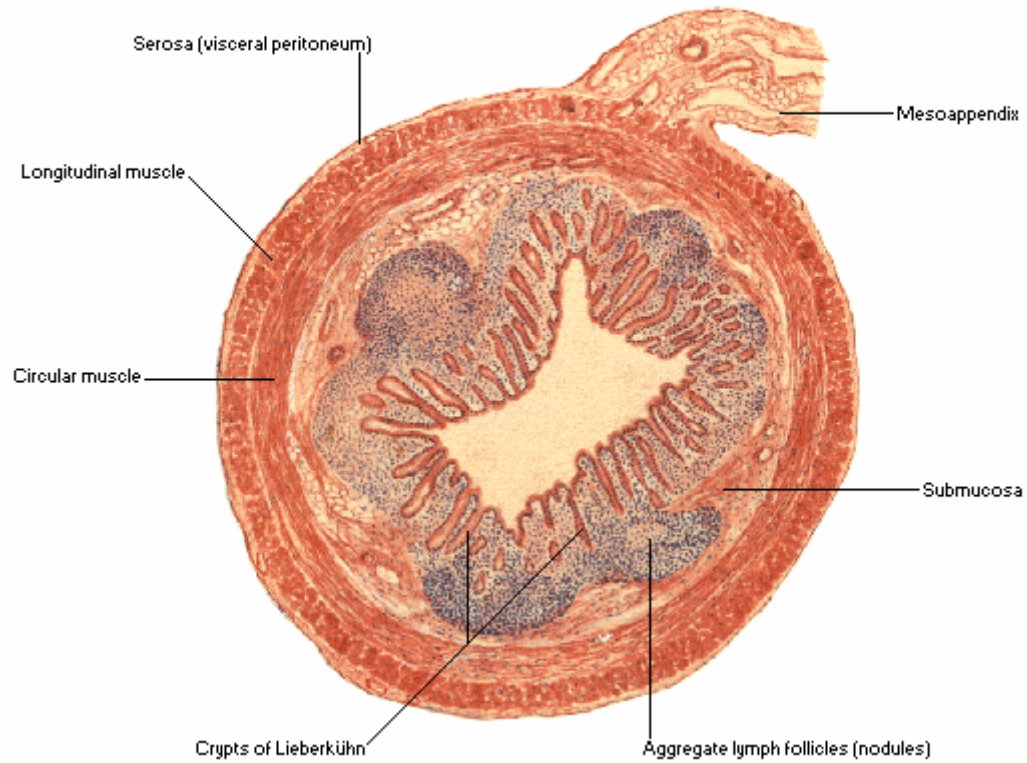


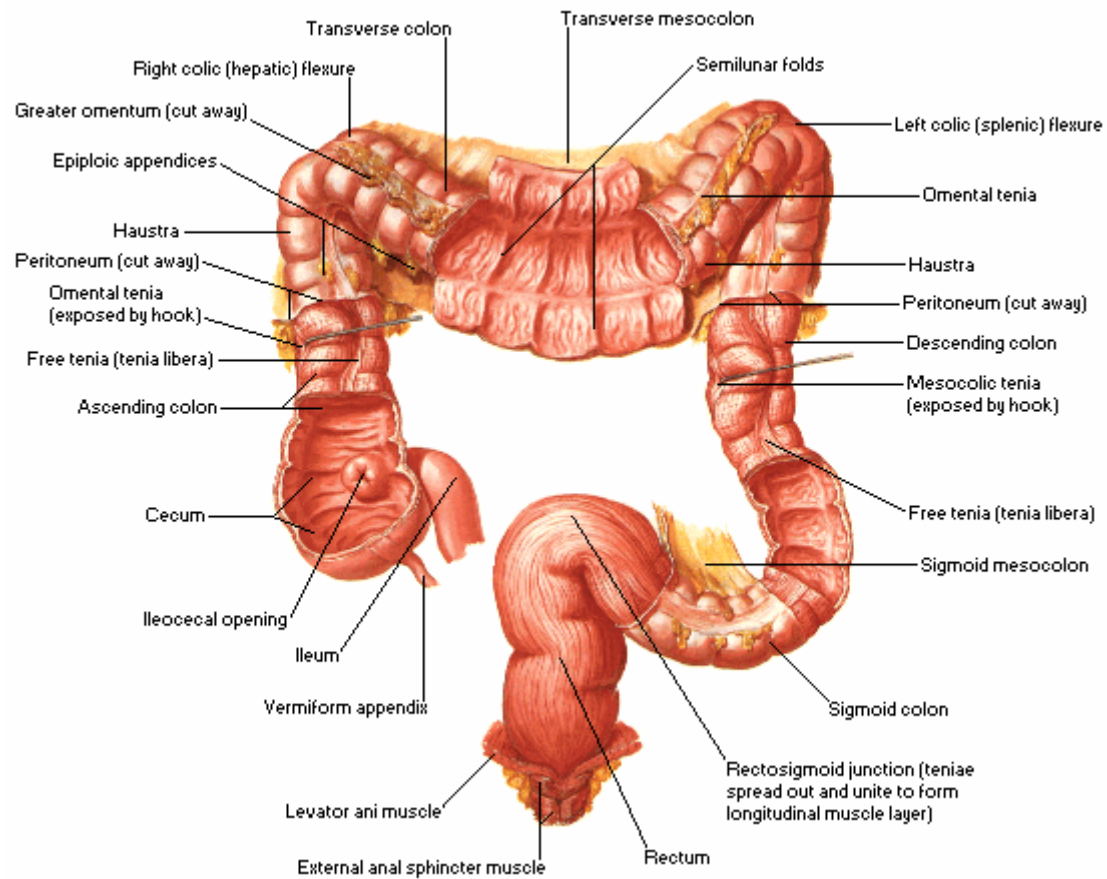
Unusually long appendix
extending into pelvis
(barium radiograph)

Fixed Retrocecal

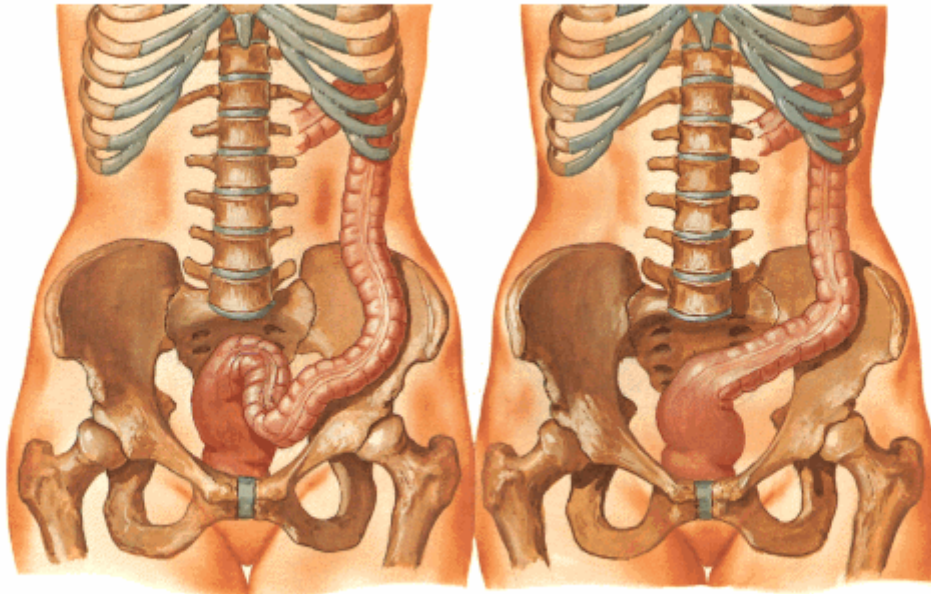


Cross Section





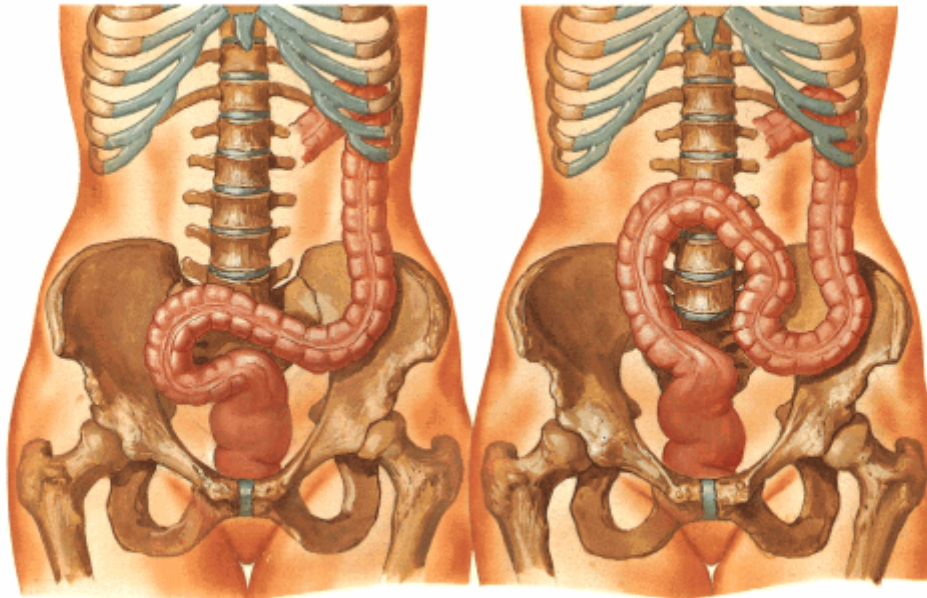
Variations in Position



Typical

Short, straight, obliquely into pelvis

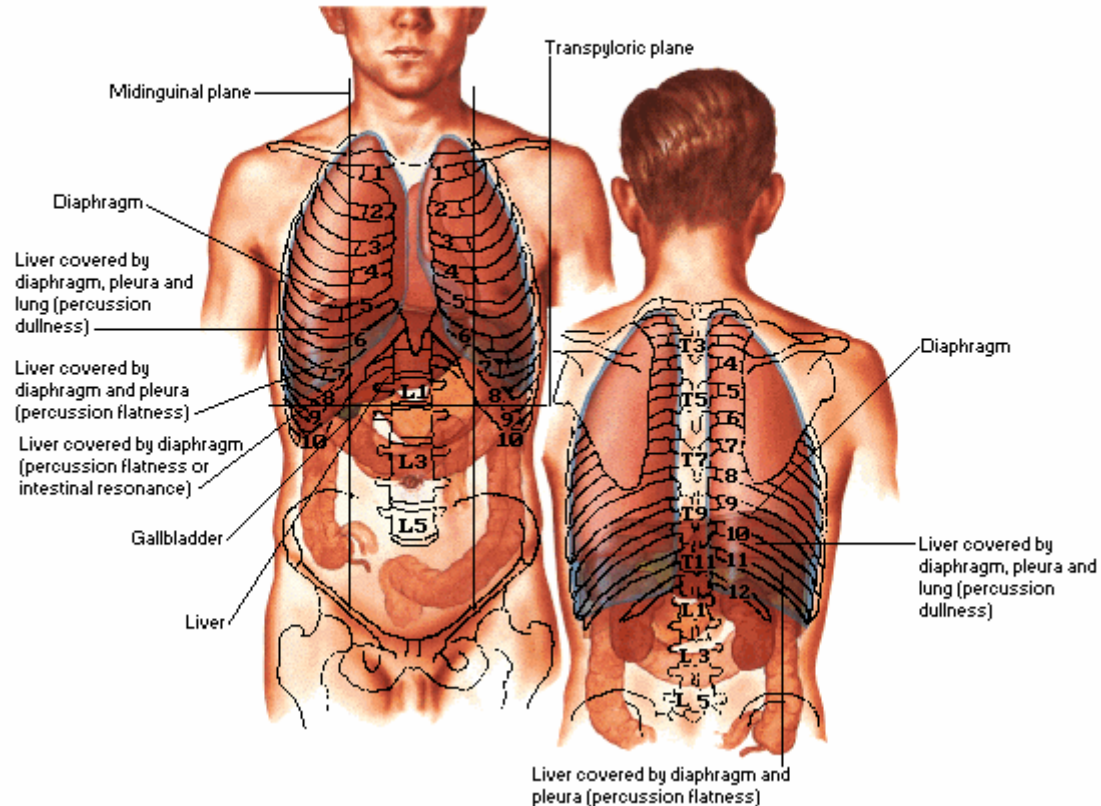
Variations in Position



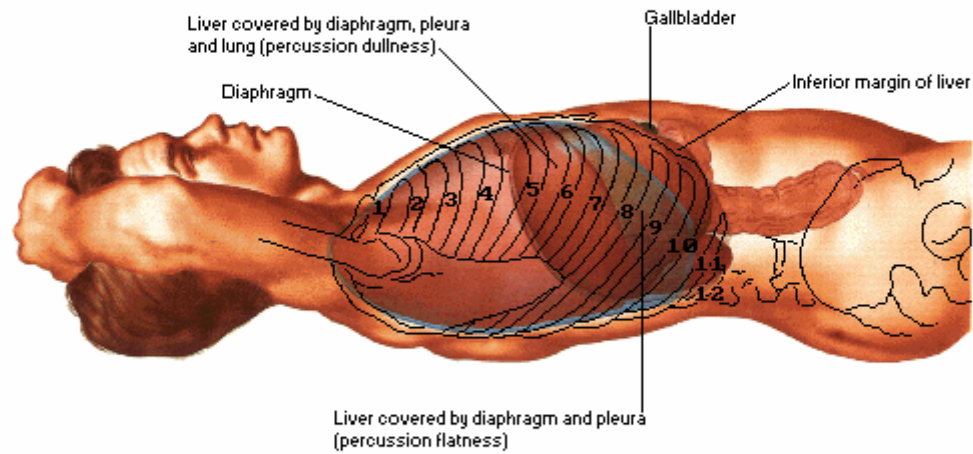
Looping to right side

Ascending high into abdomen

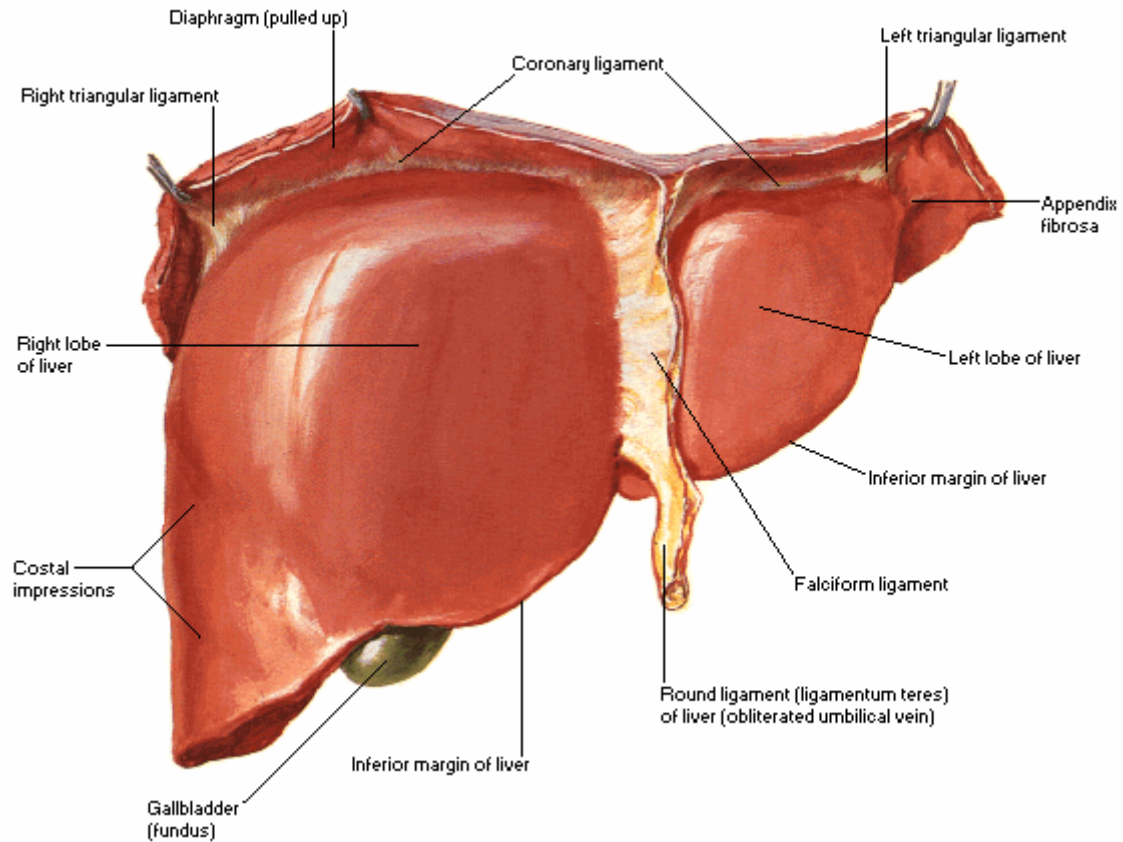
Anterior and Posterior Views



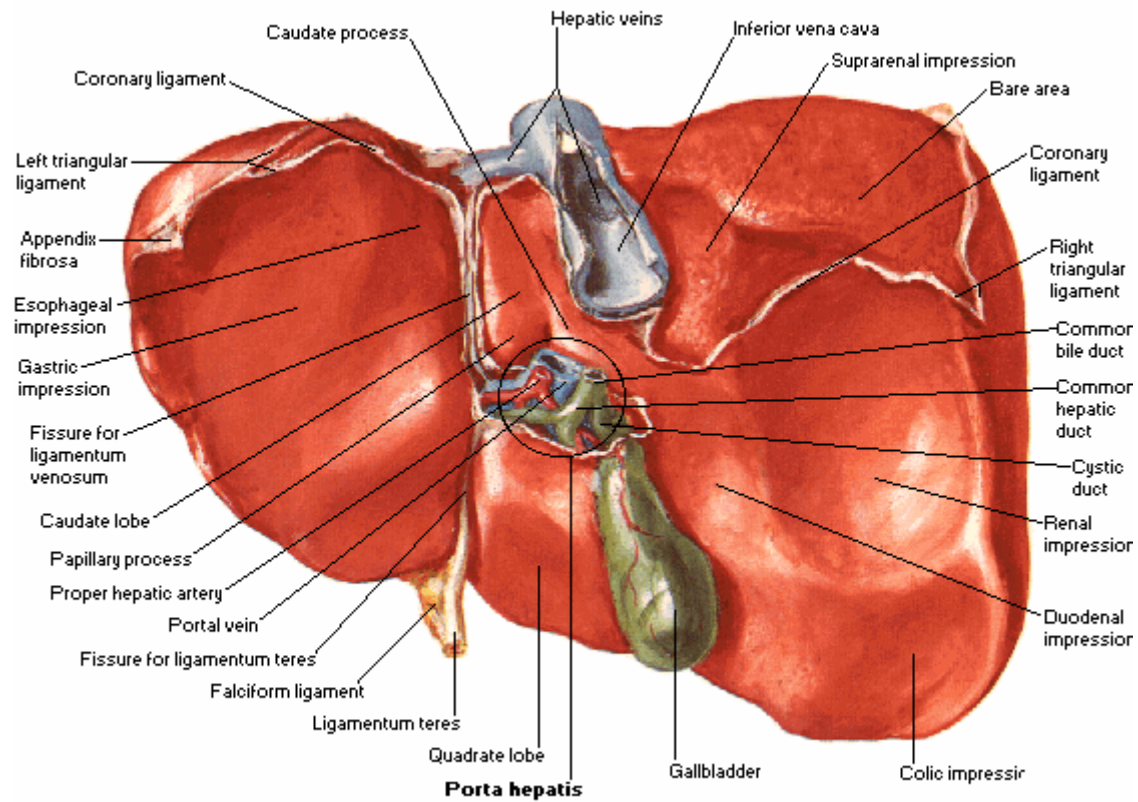
Lateral View



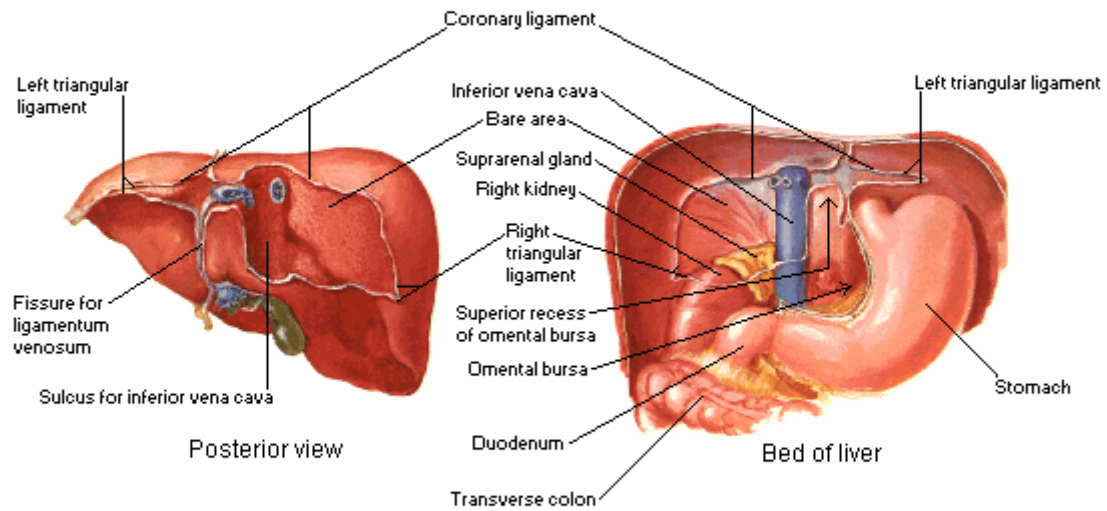
Anterior View

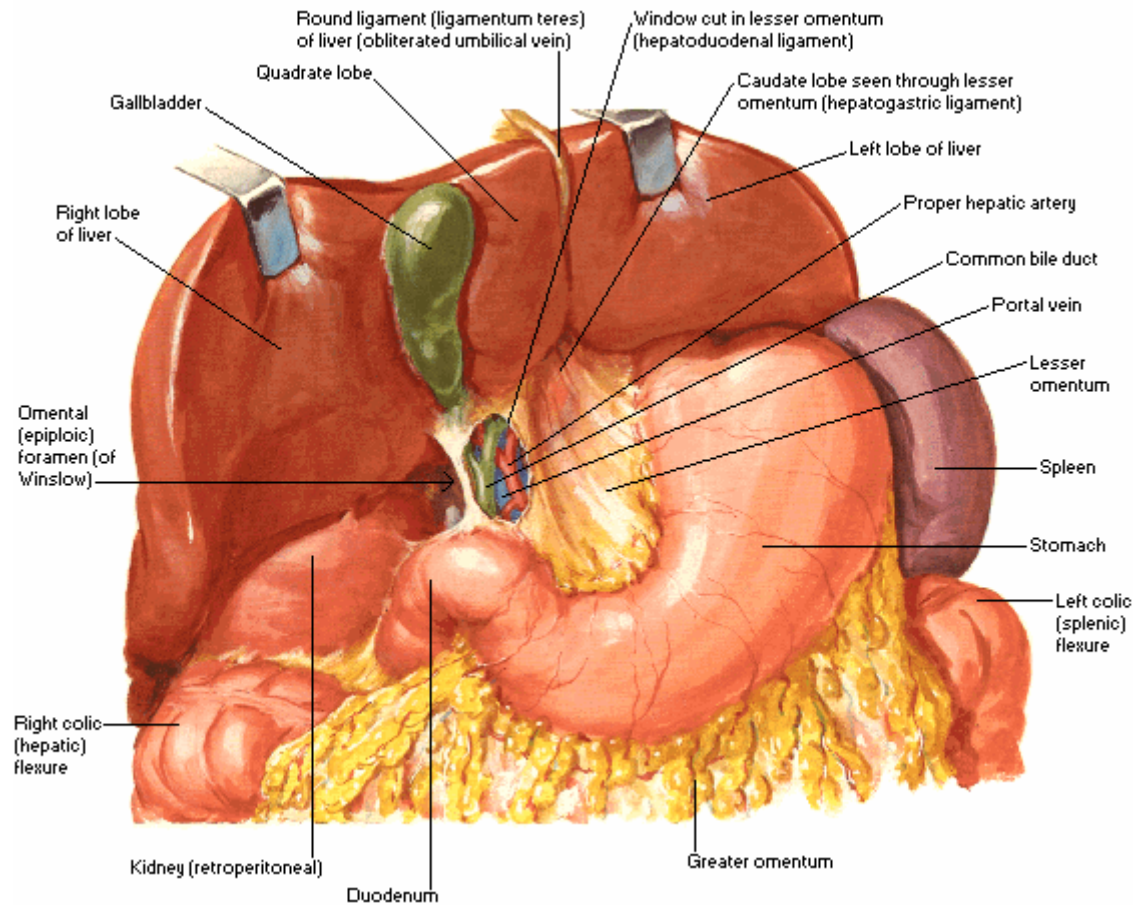


Visceral Surface



Posterior View and Bed of Liver





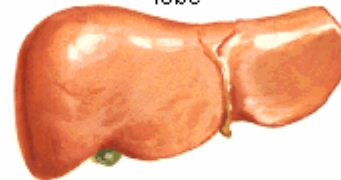
Very small left lobe,
deep costal
impressions



Complete atrophy of
left lobe (left portal
vein compression)



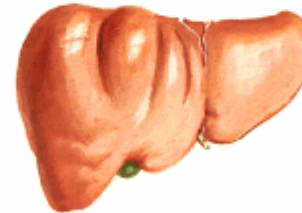
Transverse,
"saddlelike" liver,
relatively large left
lobe



"Tonguelike" process
of right lobe

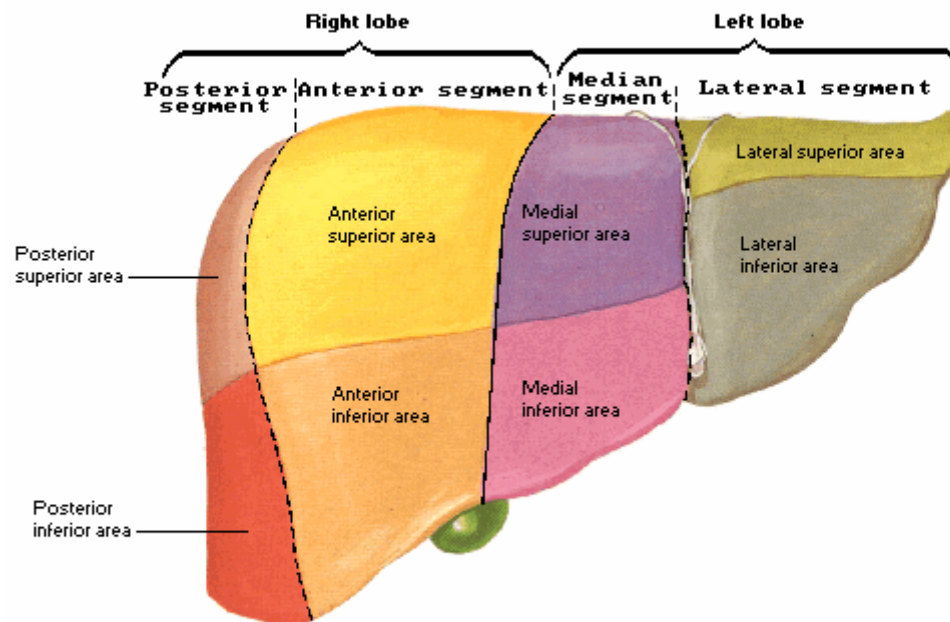


Very deep renal
impression and
"corset constriction"



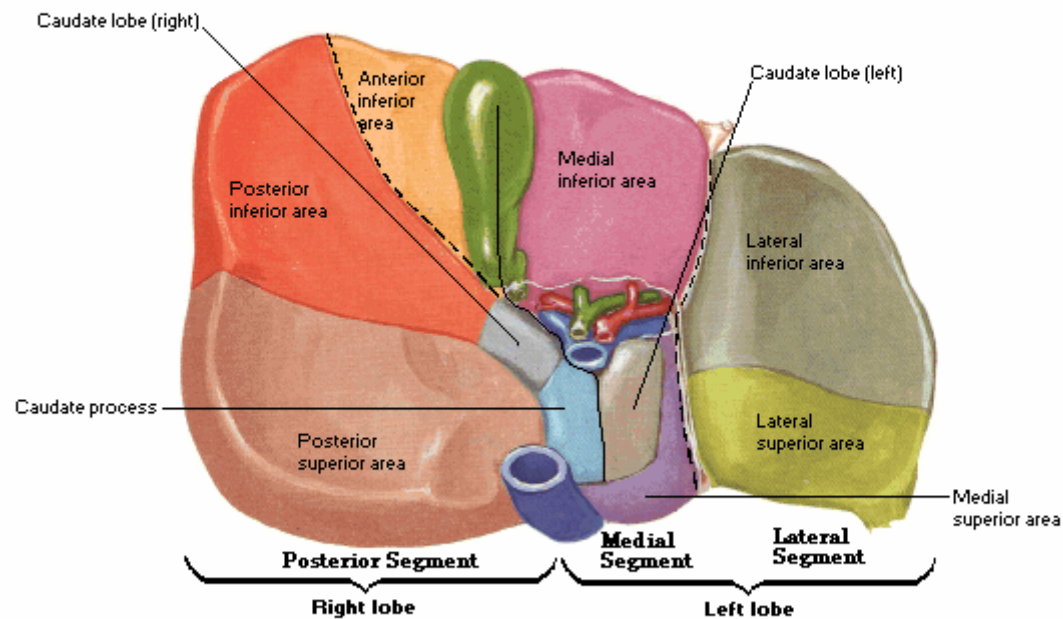
Diaphragmatic
grooves

Parietal Surface

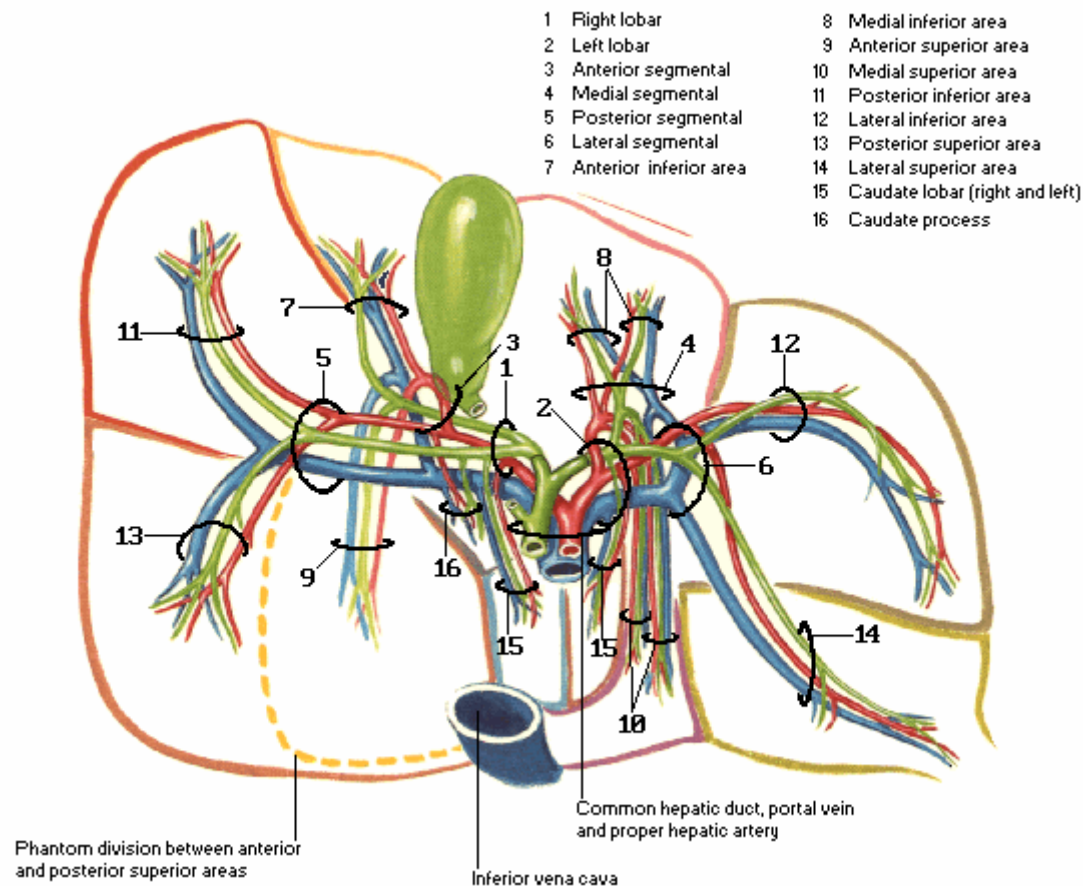


Division into segments is based upon ramifications of bile ducts and hepatic vessels. It does not entirely correspond with division into lobes

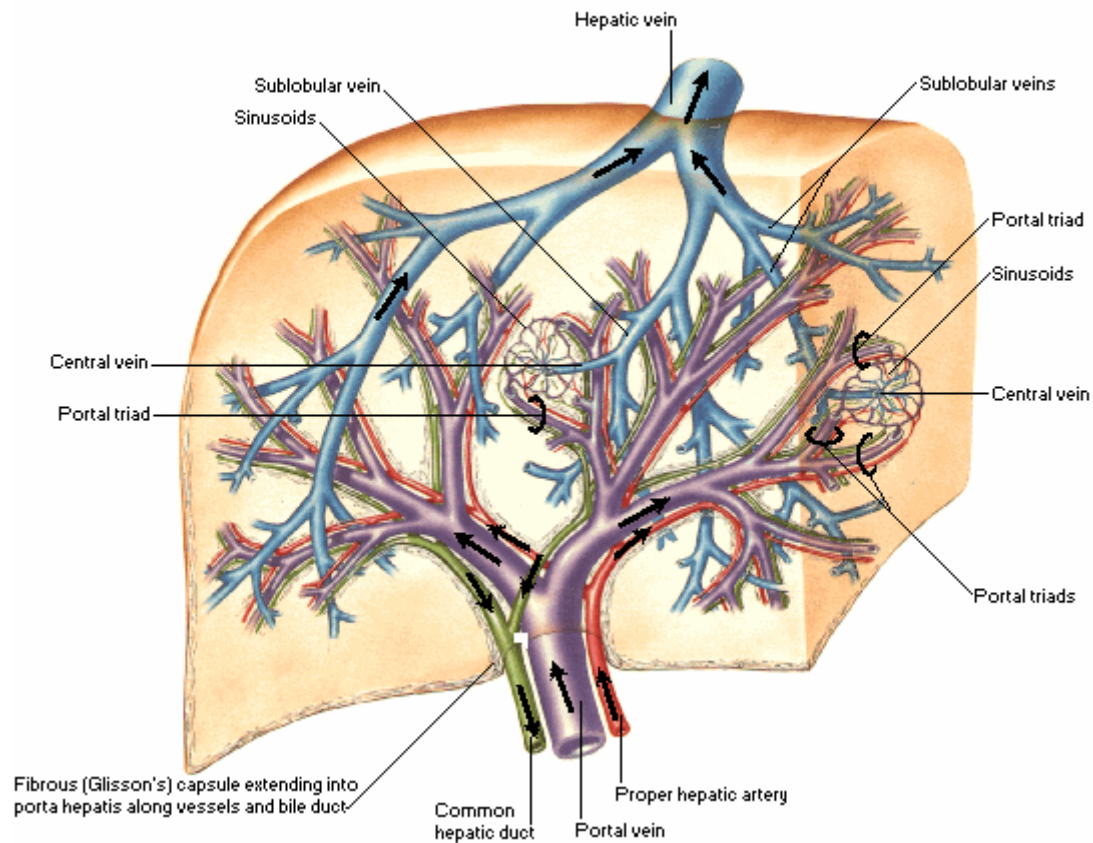
Visceral Surface

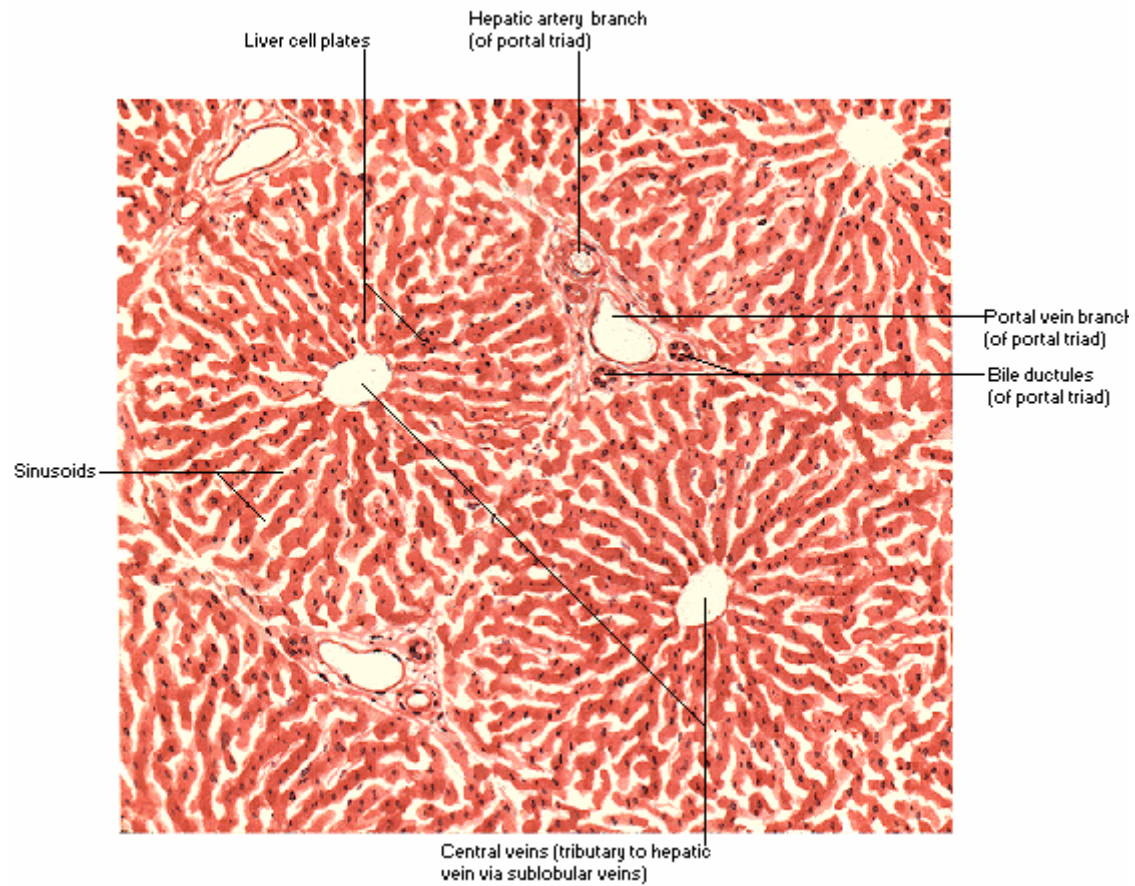


Division into segments is based upon ramifications of bile ducts and hepatic vessels. It does not entirely correspond with division into lobes

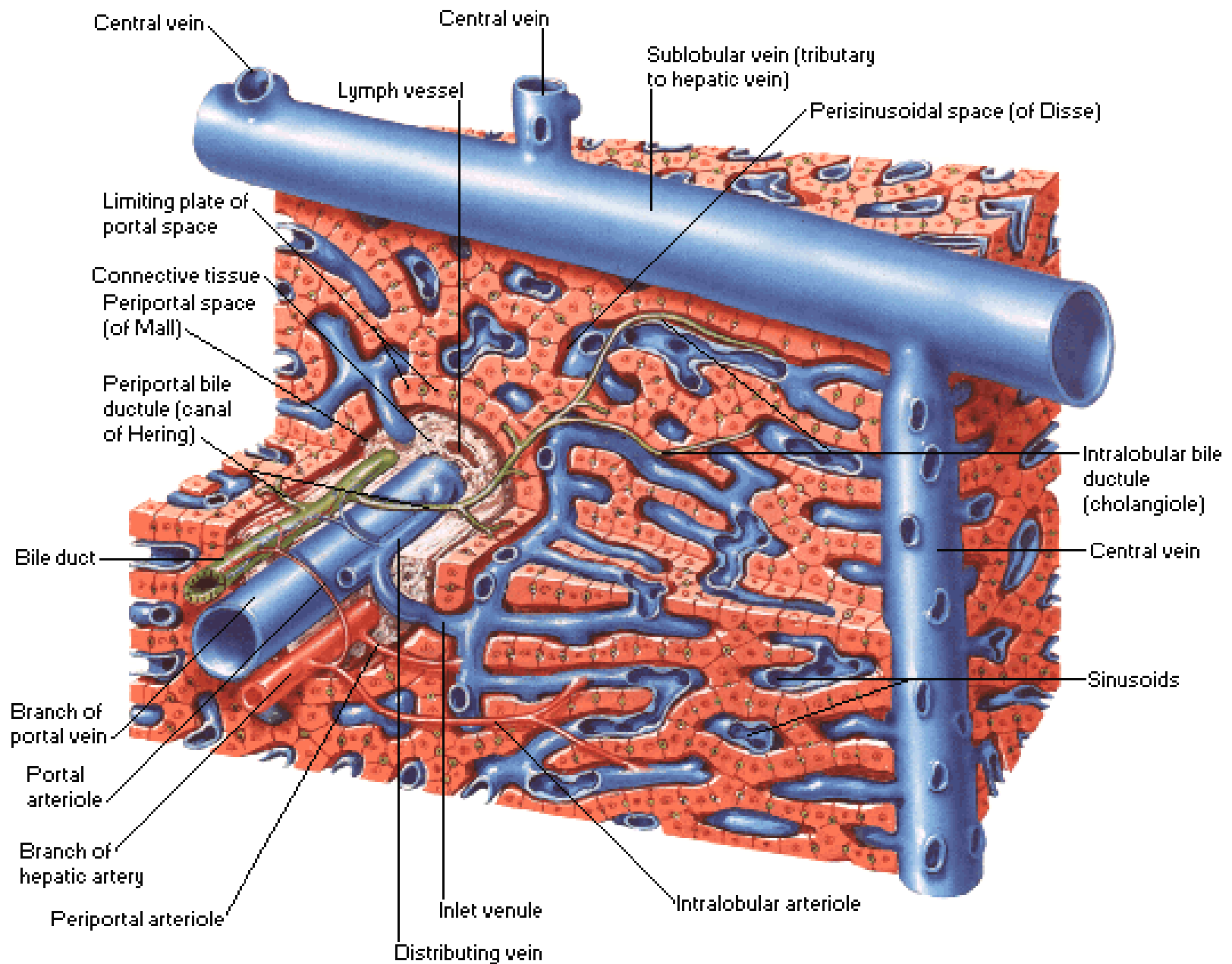


Schema

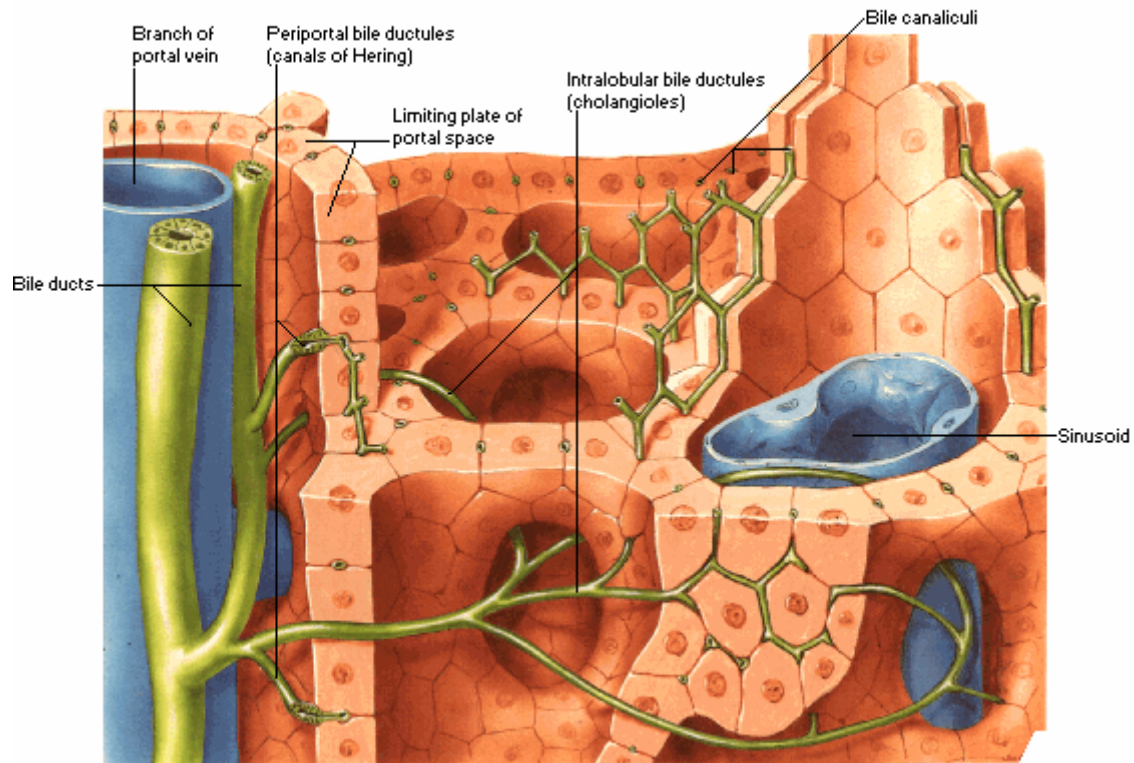




Schema

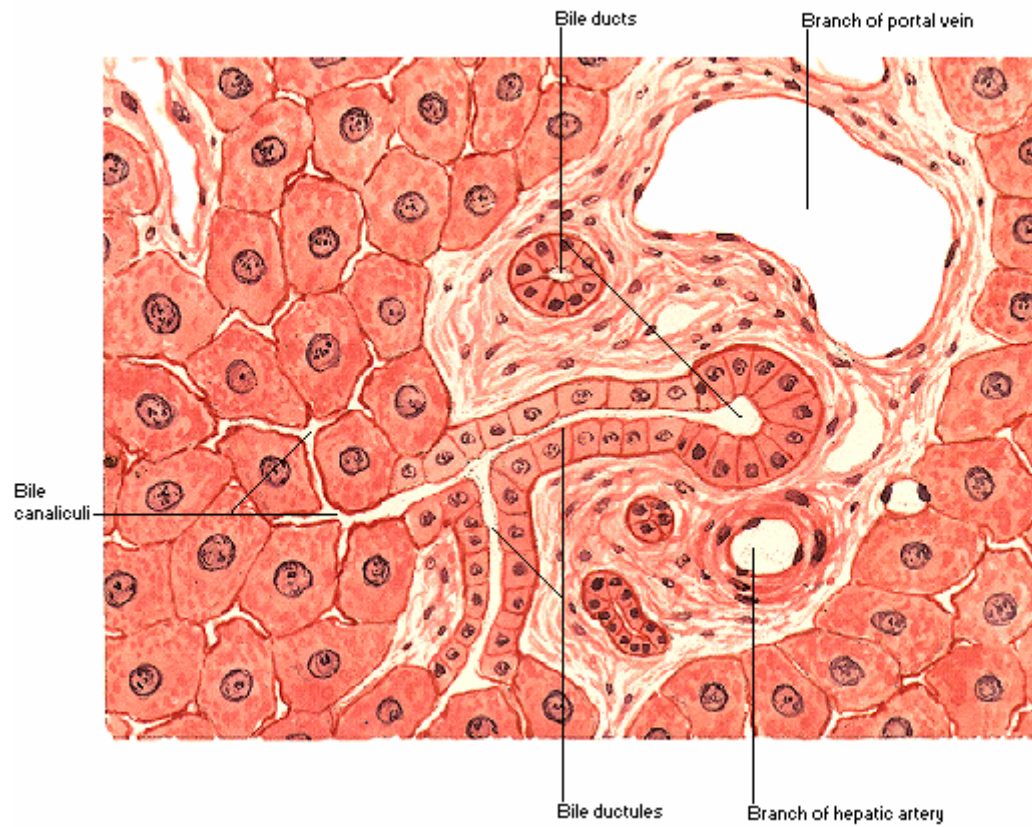


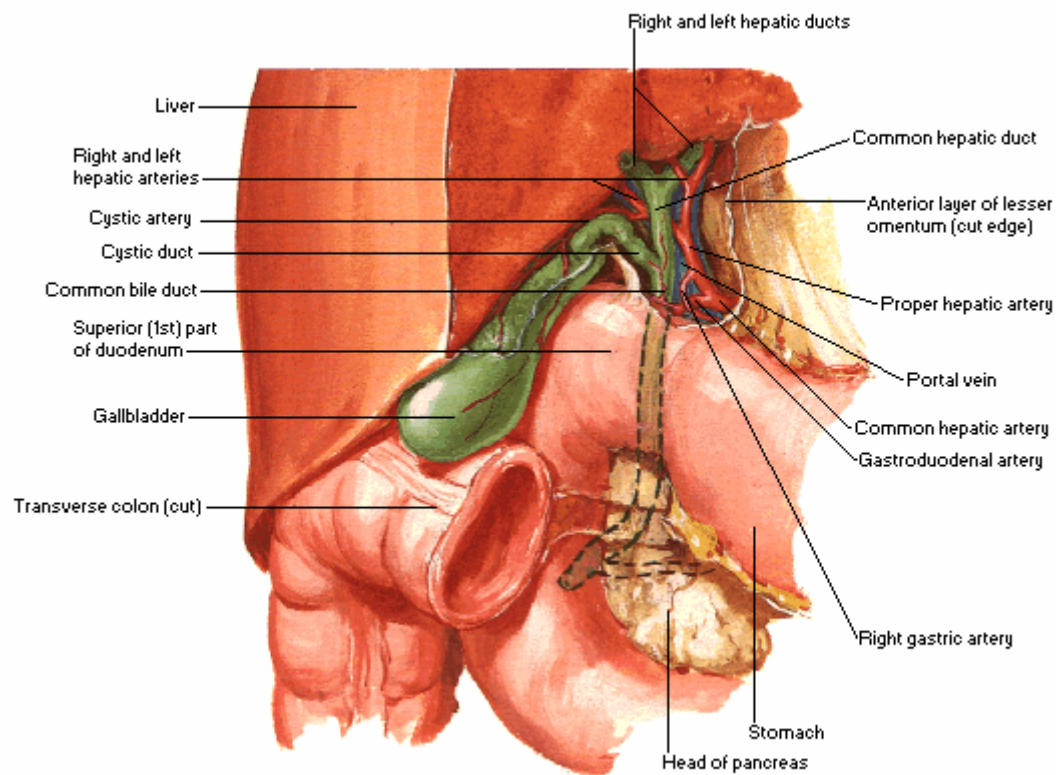
Schema



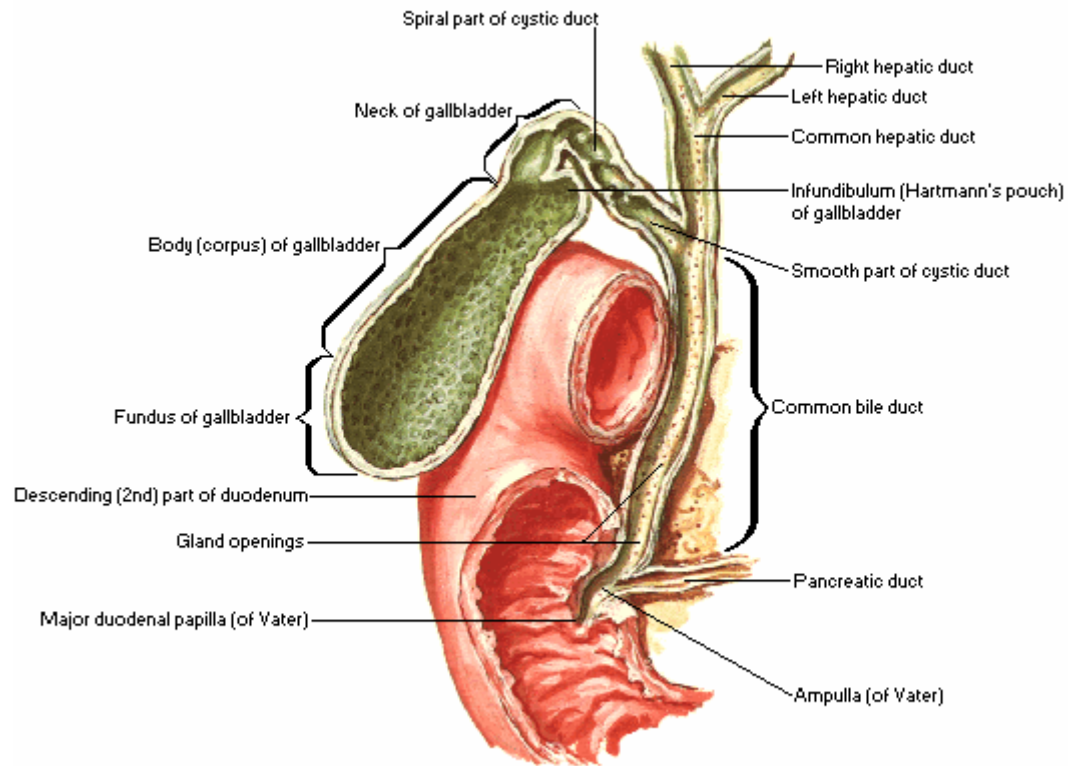
Note: in this illustration, bile canaliculi appear as structures with walls of their own. However, as shown in image 275B, boundaries of canaliculi are actually a specialization of surface membranes of adjoining liver parenchymal cells

Histology





Sectioned



Low union
with common
hepatic duct



Adherent to
common
hepatic duct



High union with
common
hepatic duct



Cystic duct
absent or
very short



Anterior spiral
joining common
hepatic duct on
left side



Posterior spiral
joining common
hepatic duct on
left side



Joining
common
hepatic duct



Joining cystic
duct



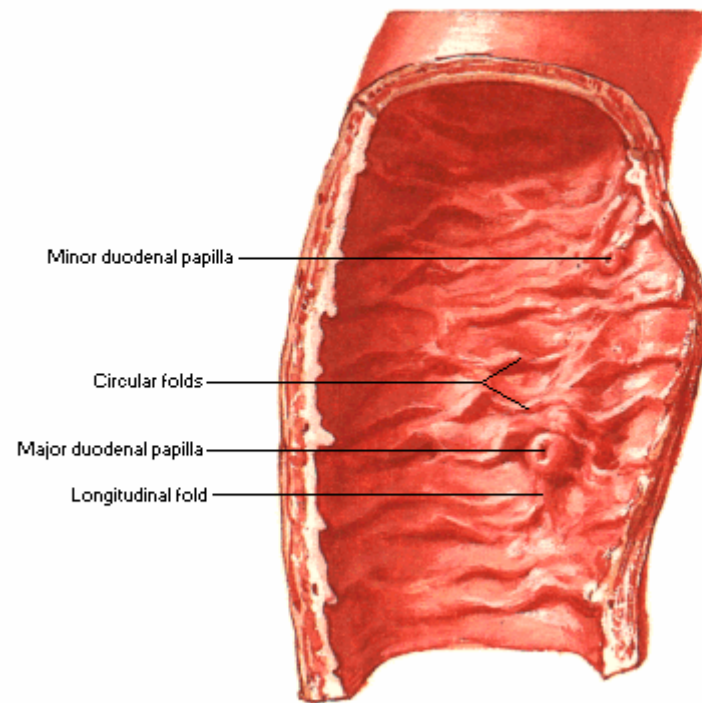
Joining
common
bile duct



Joining
gallbladder

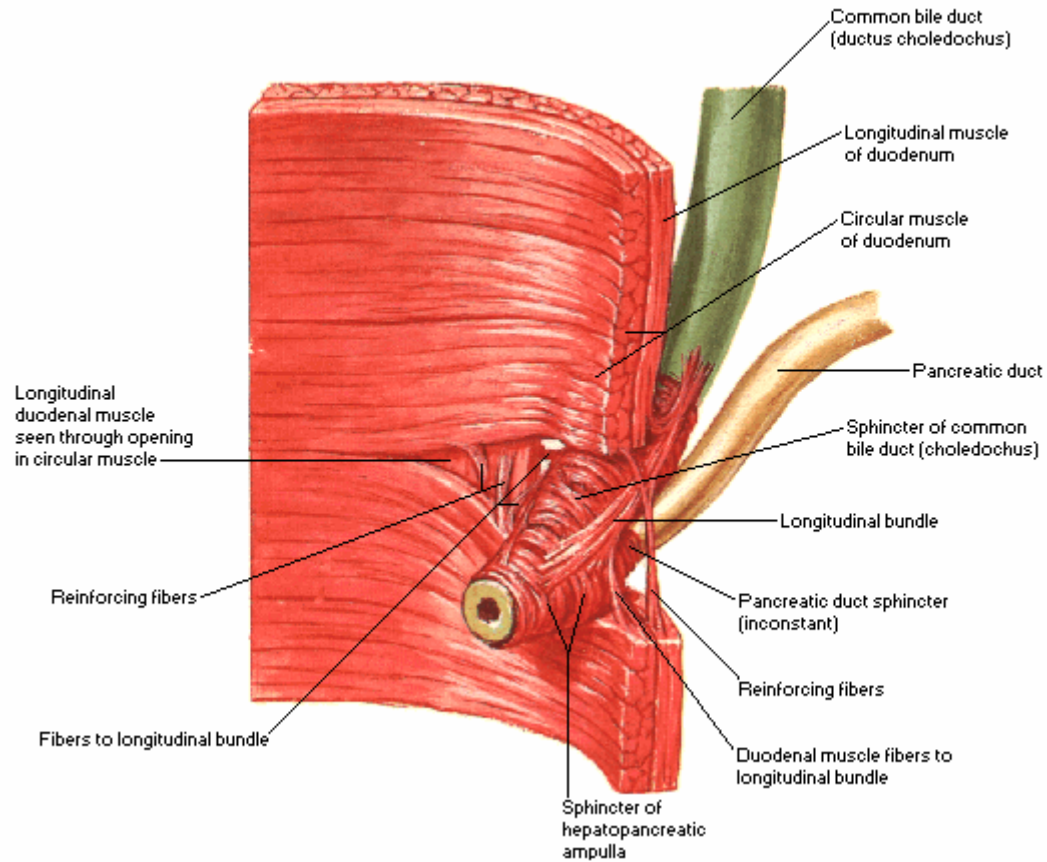


Two accessory
hepatic ducts

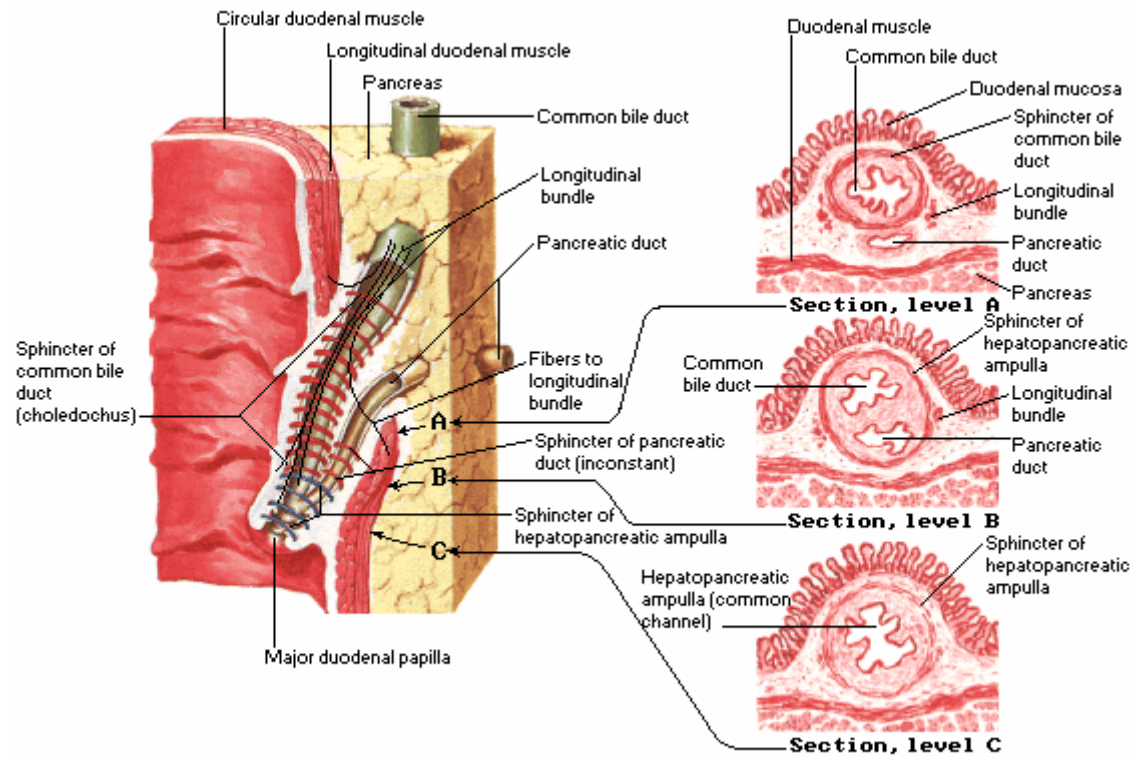


Interior of descending (2nd) part of duodenum

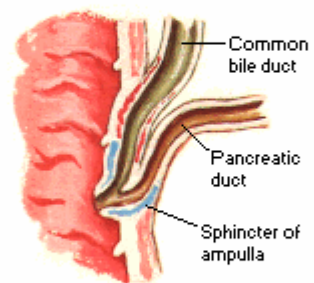
Dissection



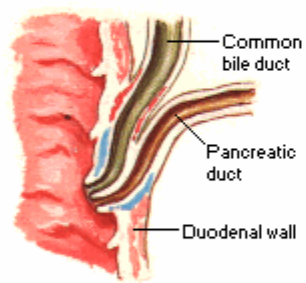
Reconstruction



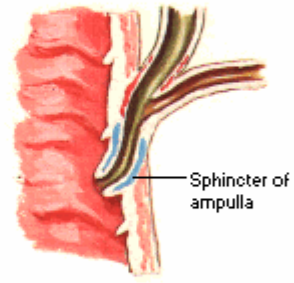
Short common
channel

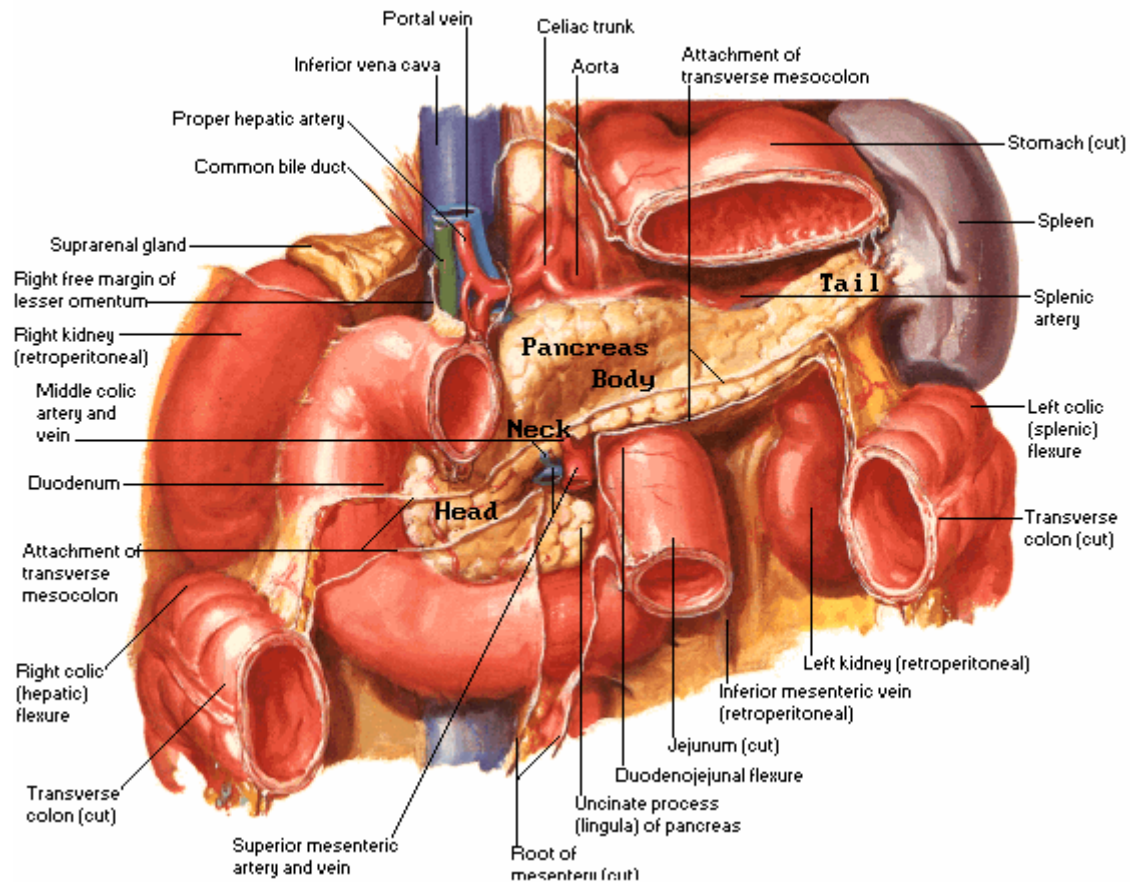


No common
channel

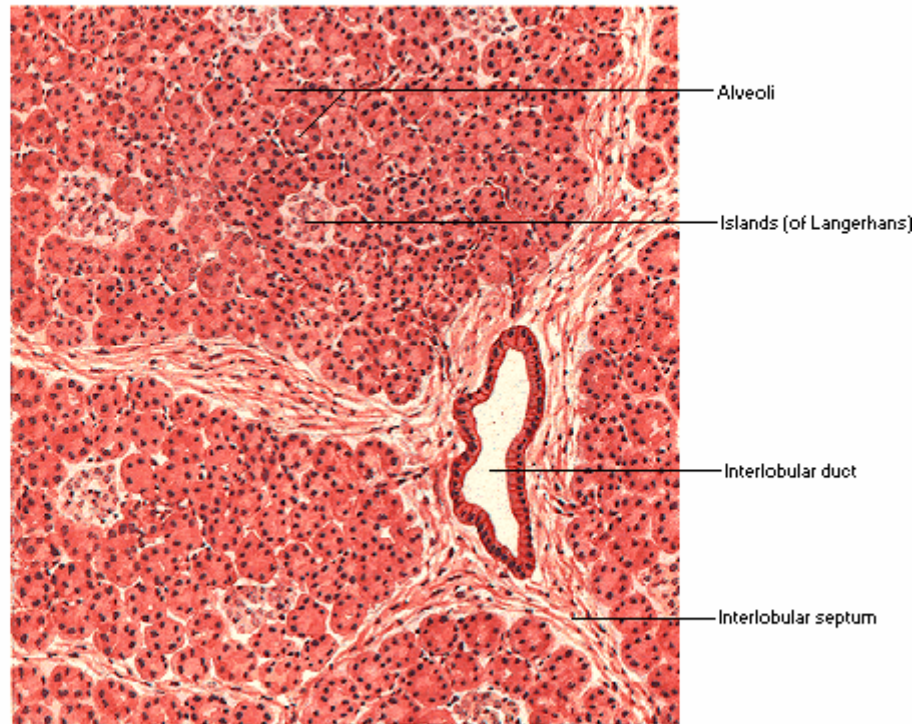


Long common
channel

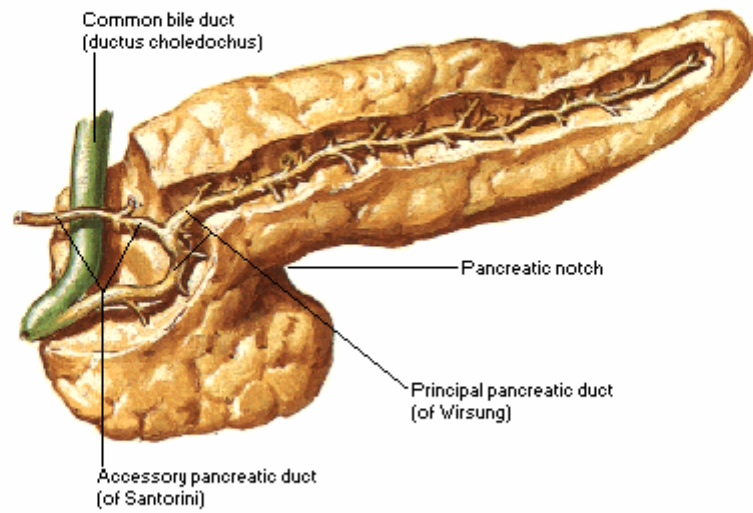


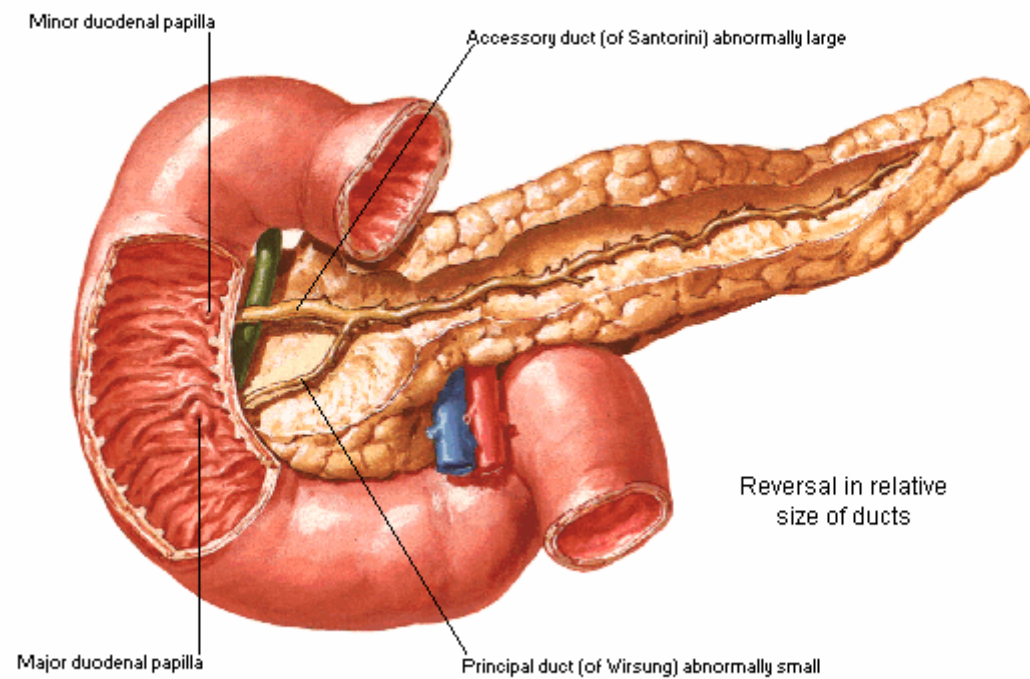


Histology



Low-power section of pancreas



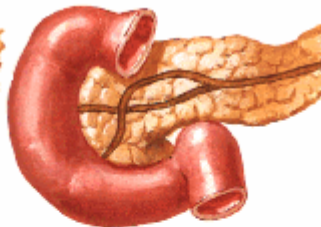




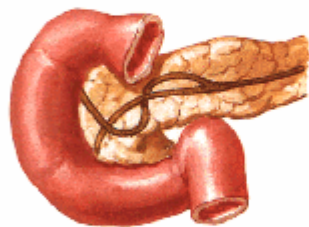
Double accessory duct (of Santorini)



Anastomosis between ducts



Crossing ducts



Double crossing of ducts



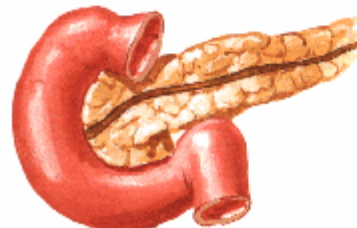
No communication between ducts



Double principal duct (of Wirsung)

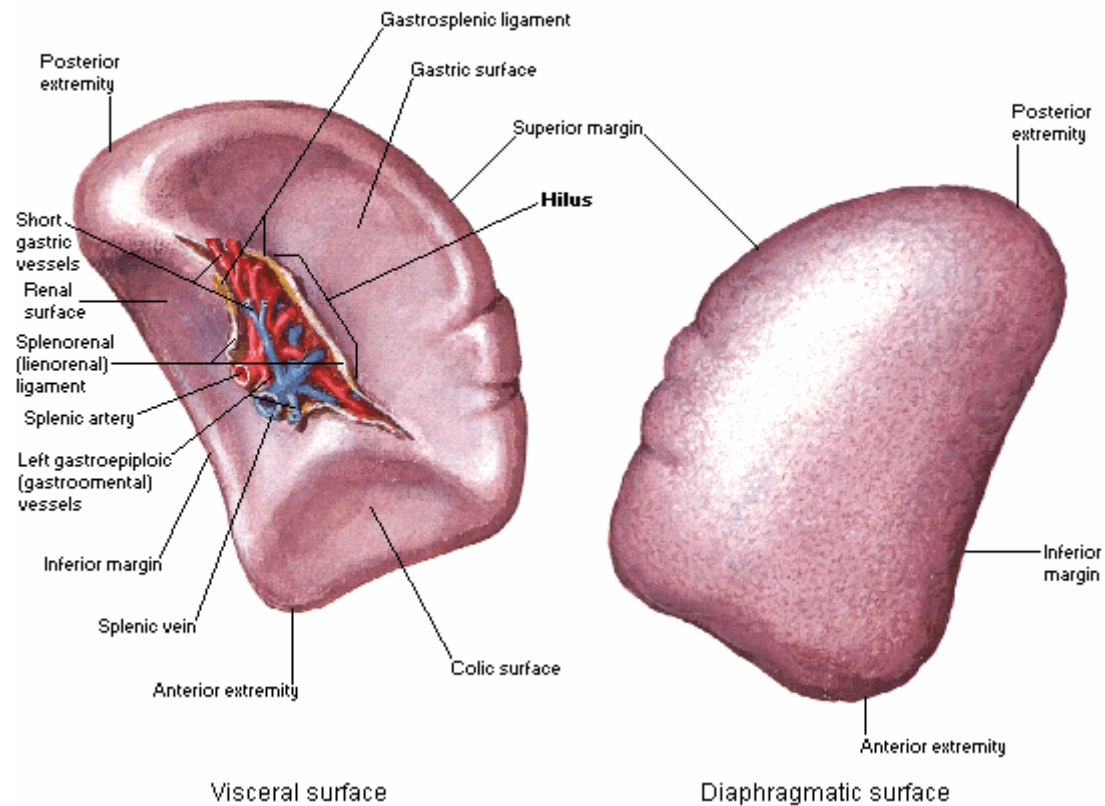


Tortuosity of ducts

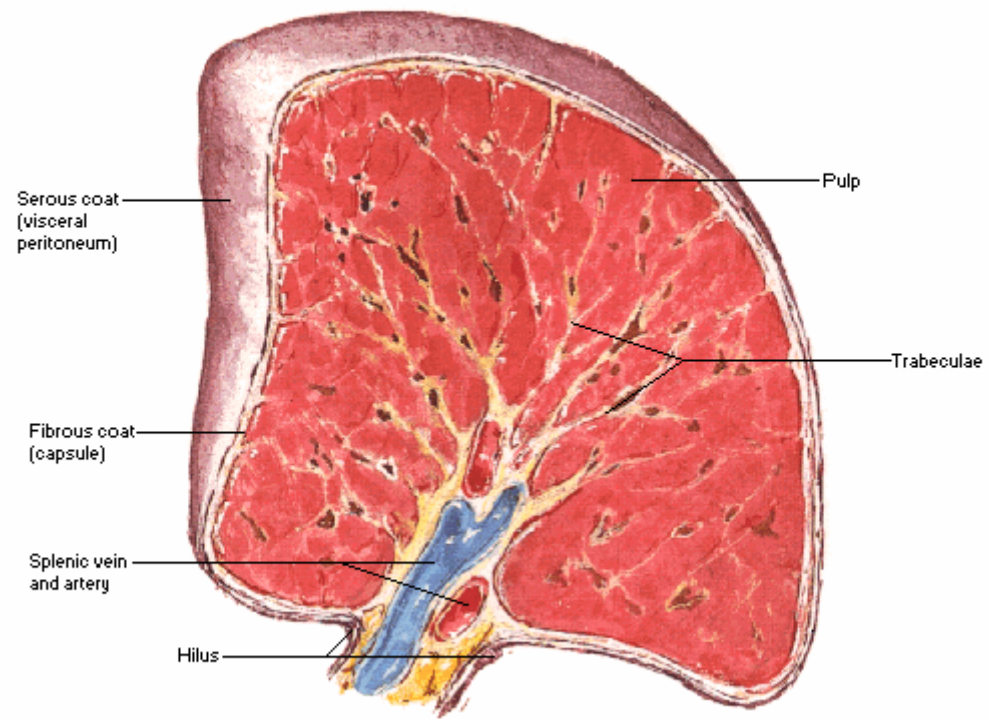


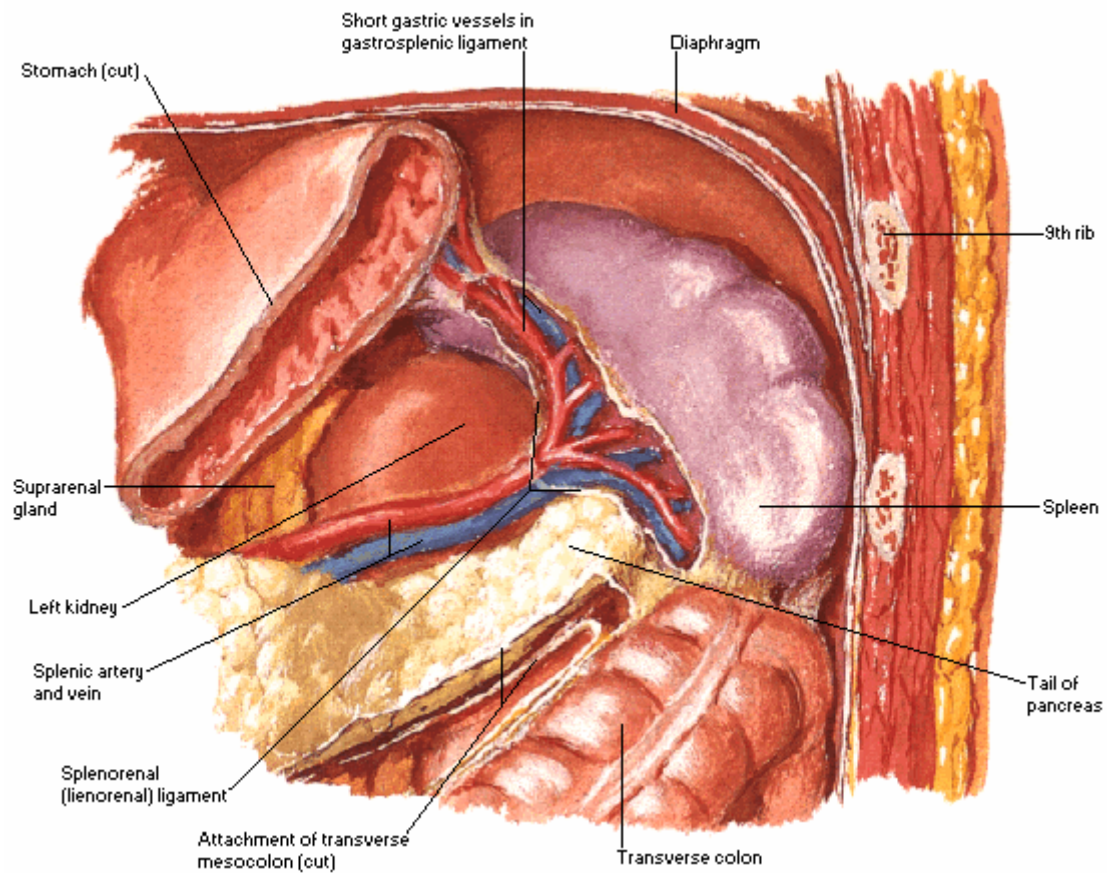
Absence of accessory duct (of Santorini)

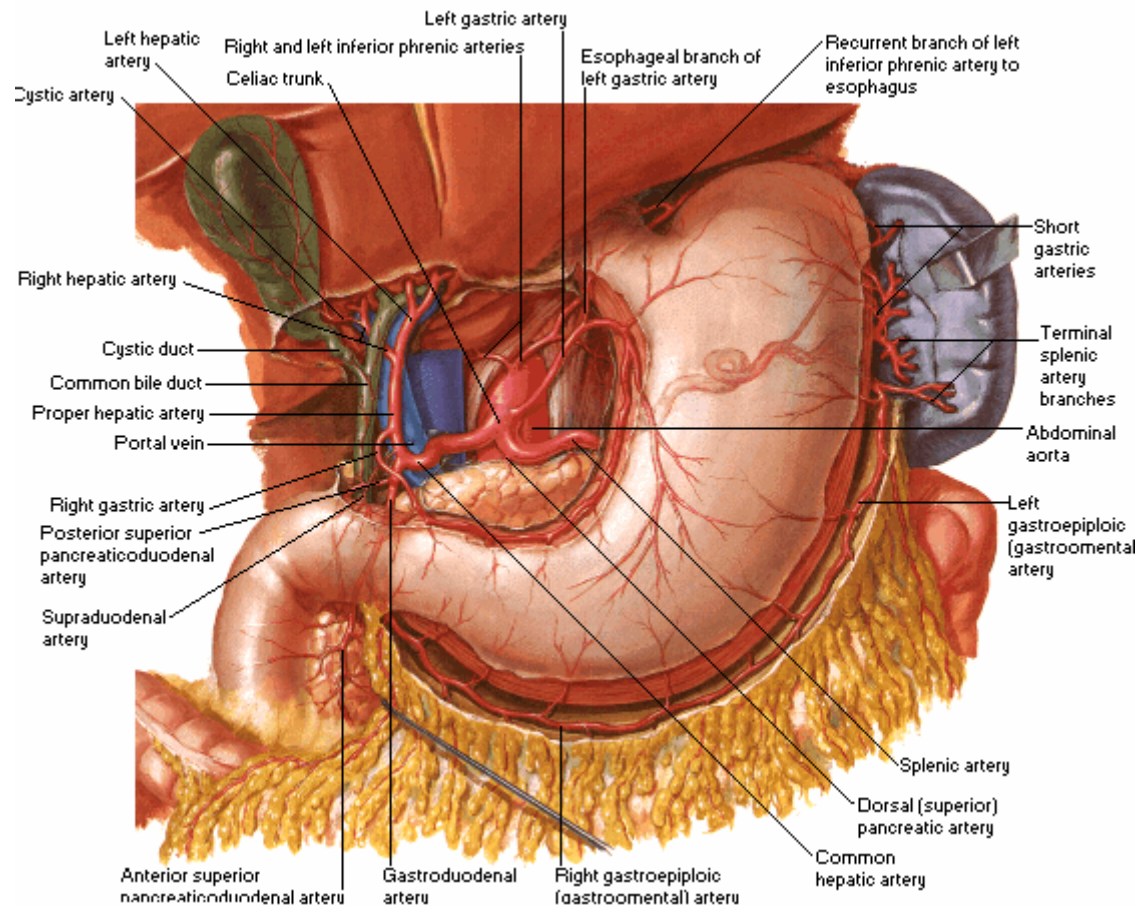
Visceral and Diaphragmatic Surfaces

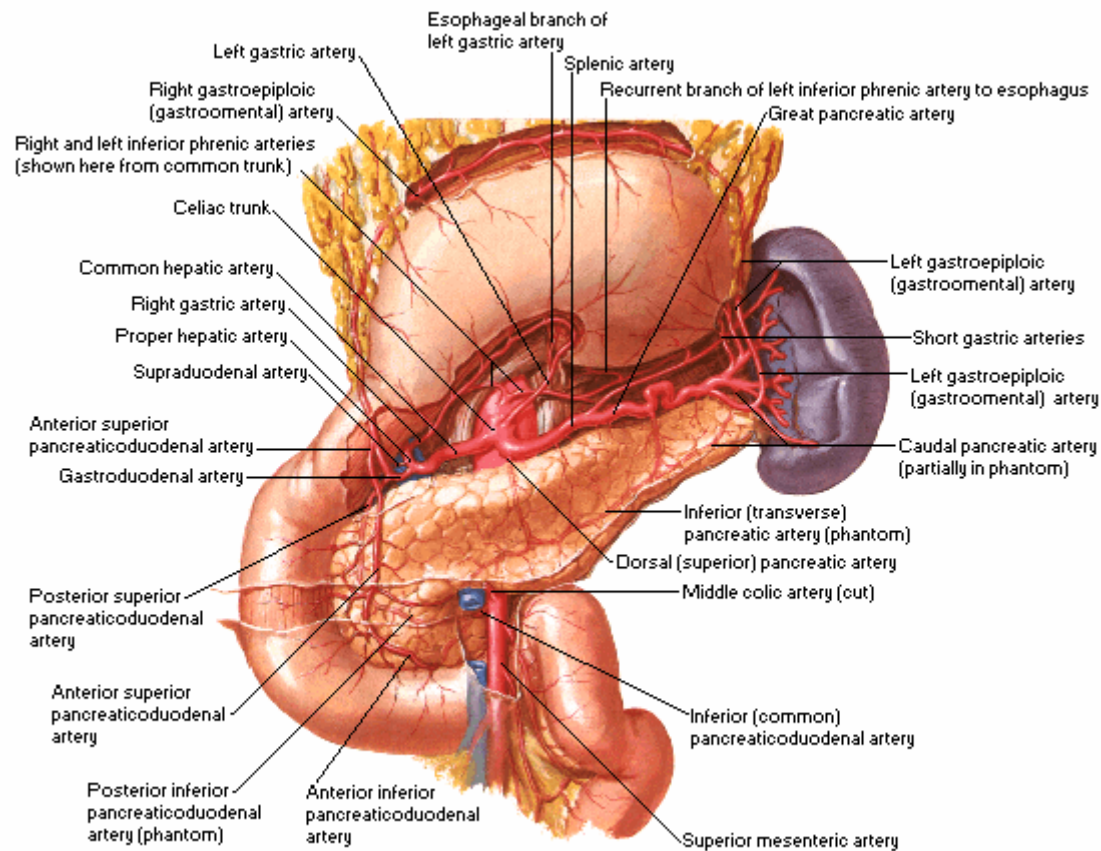


Cross Section

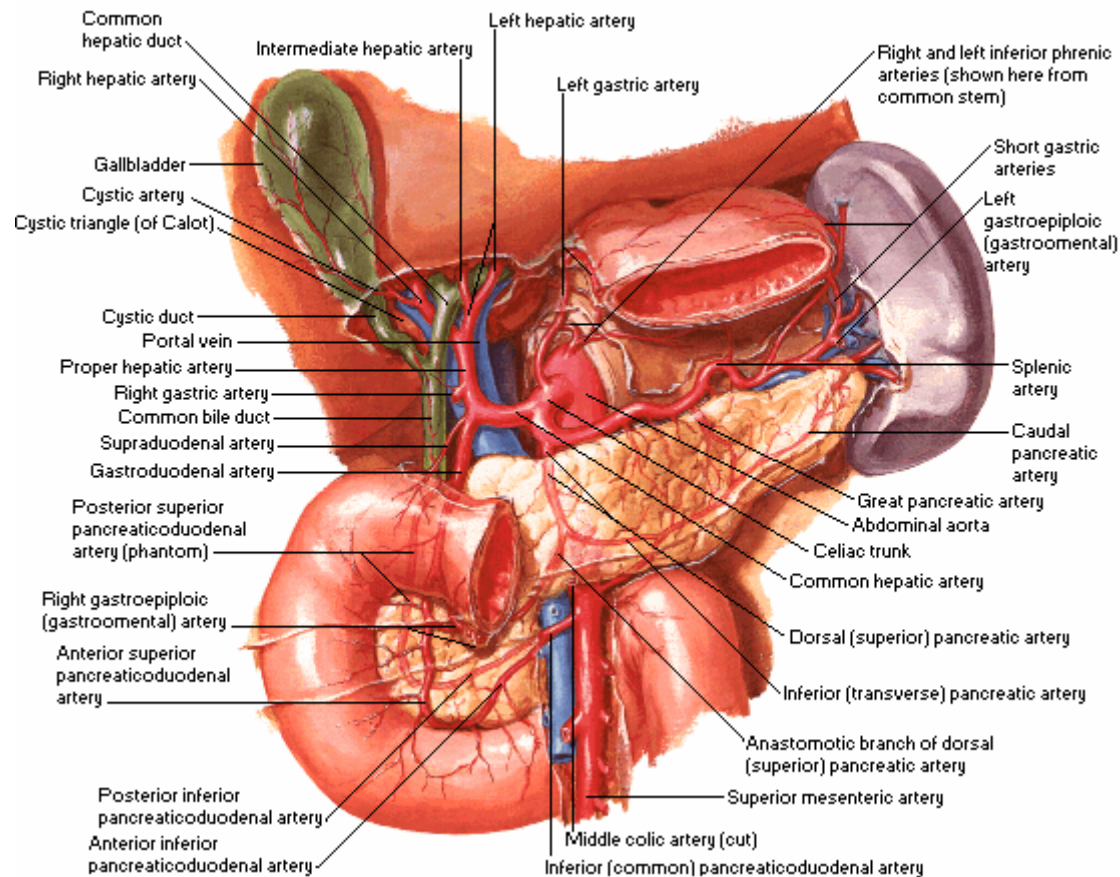




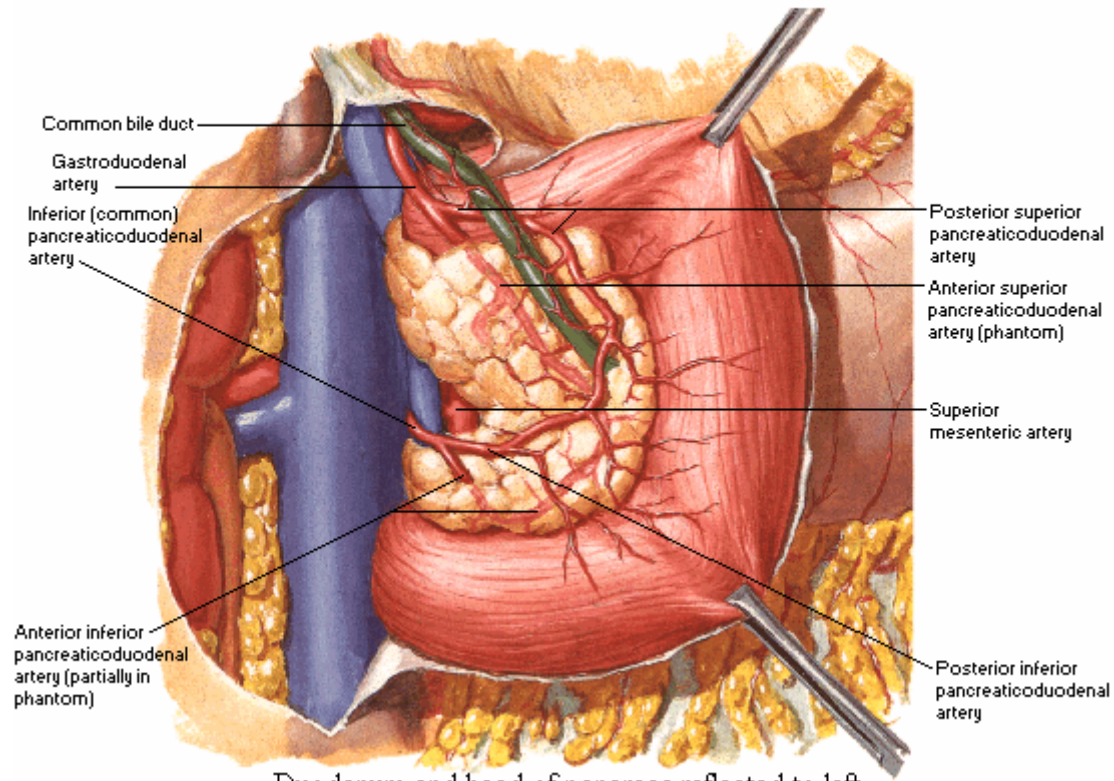




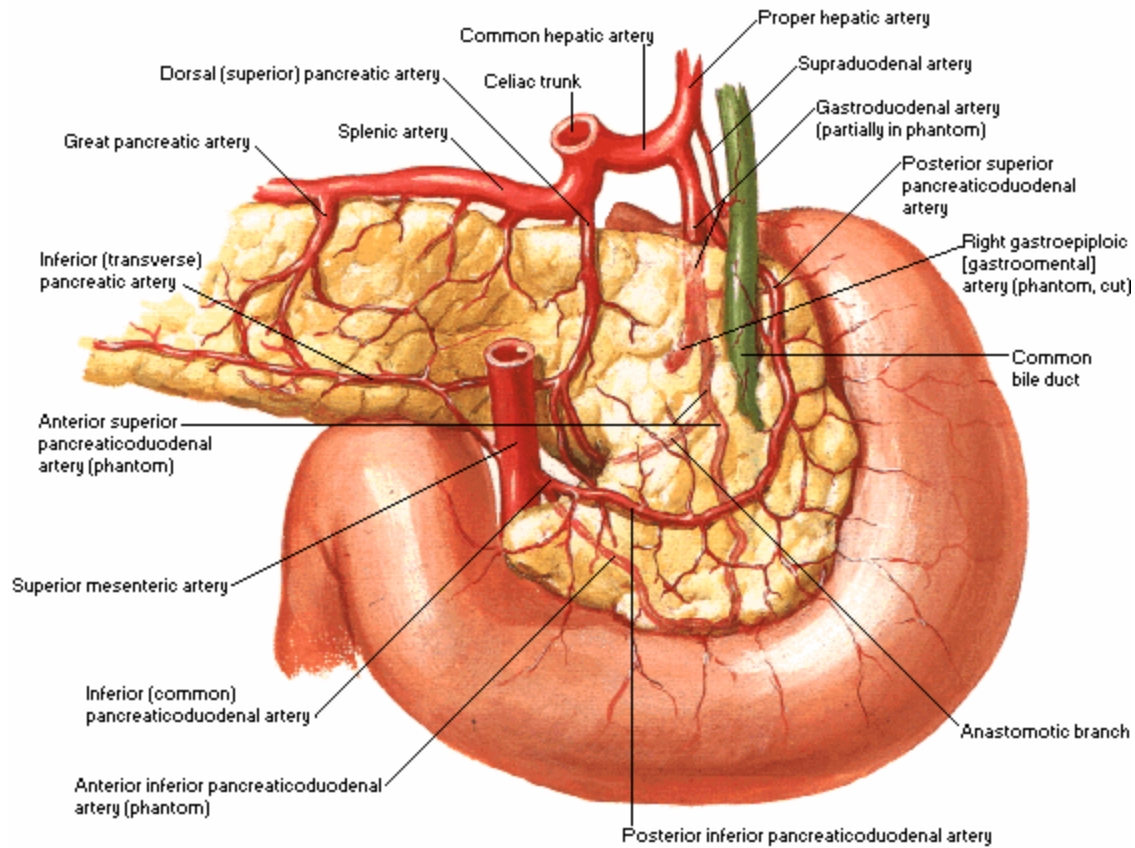
View with stomach reflected cephalad

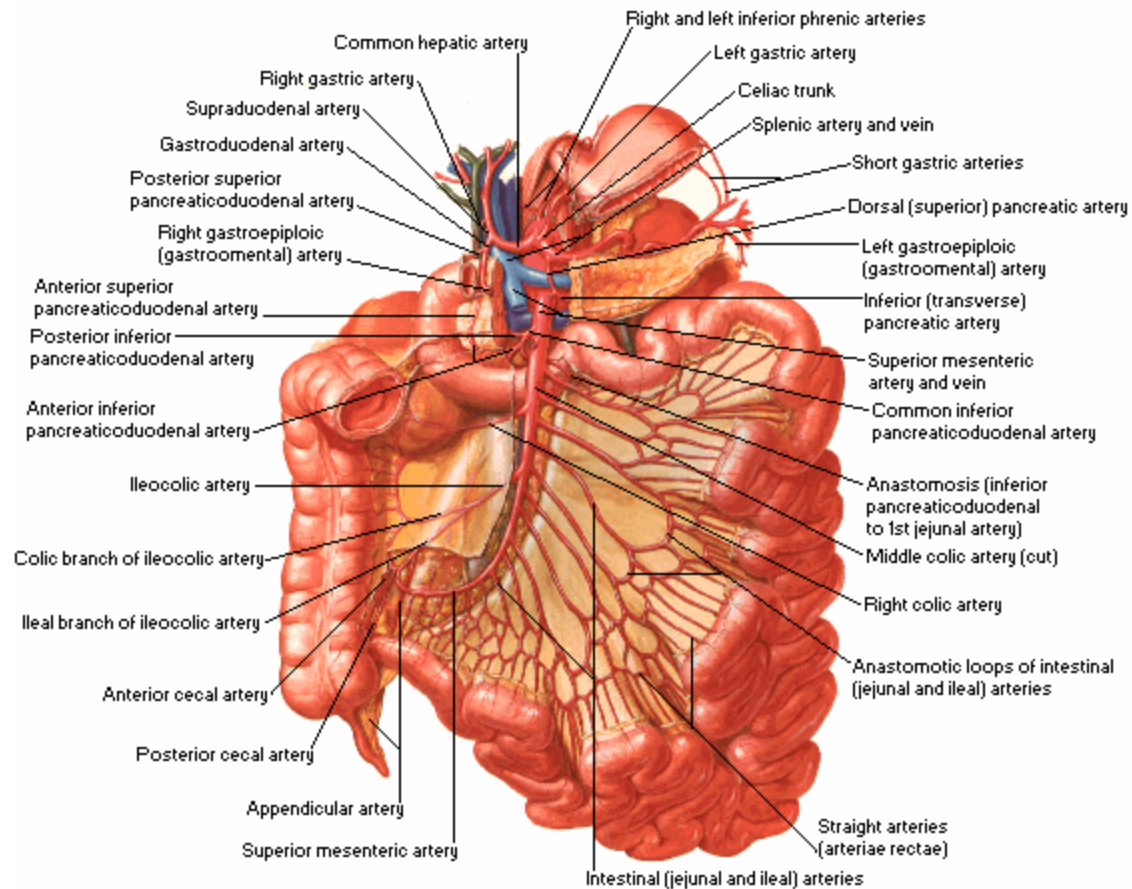


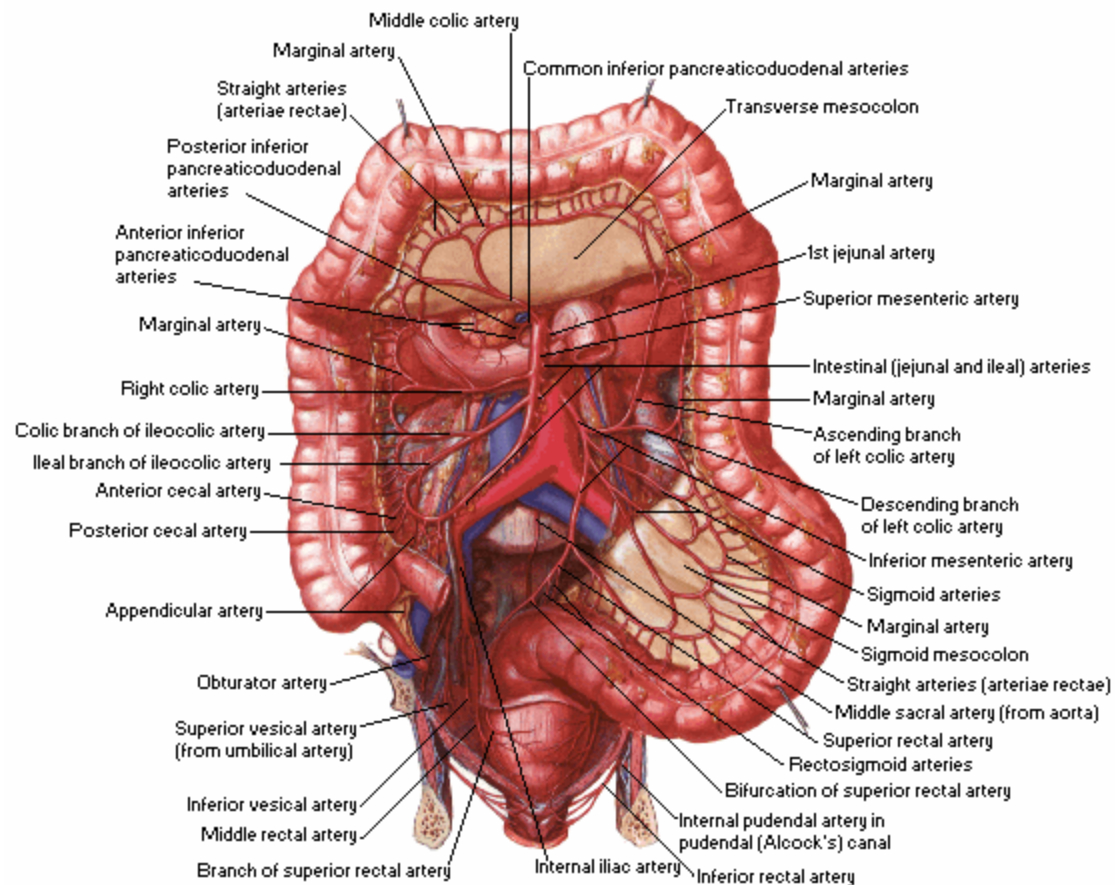
Reflected to Left



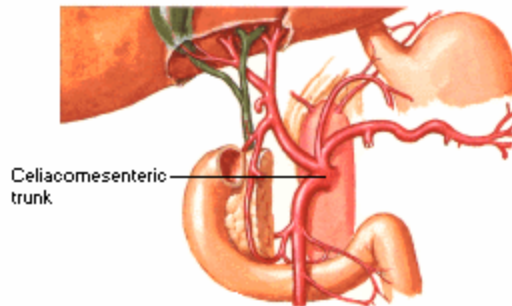
Posterior View



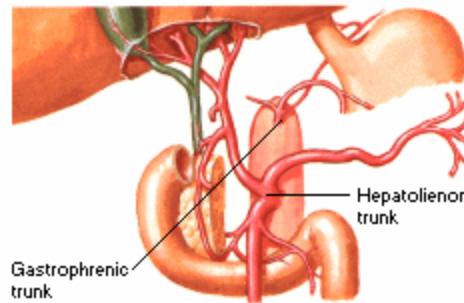
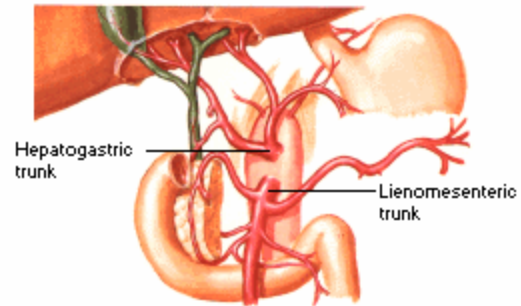




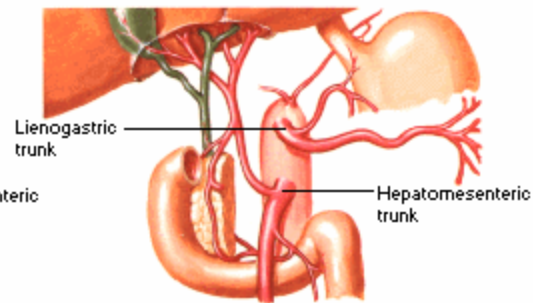
Common origin of celiac trunk and superior mesenteric artery



Splenic artery takes origin from superior mesenteric (note replaced left hepatic artery from left gastric)

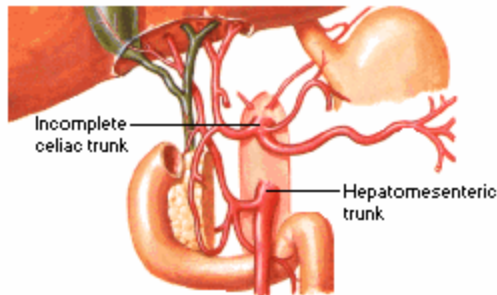


Splenic and hepatic arteries take origin from superior mesenteric

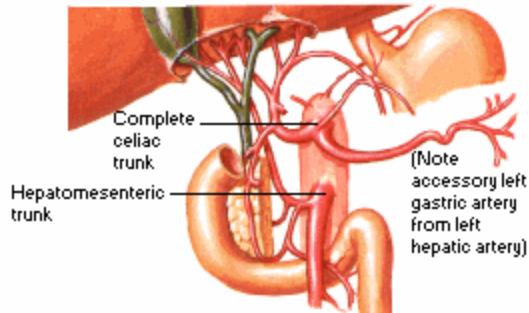
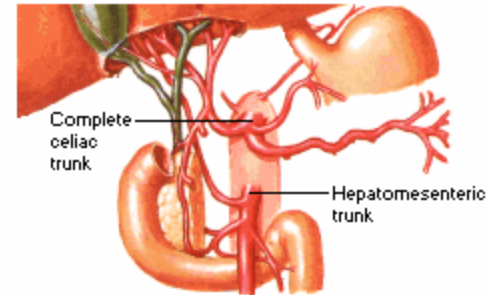


Replaced hepatic artery takes origin from superior mesenteric (note inferior pancreaticoduodenal artery from 1st jejuna"

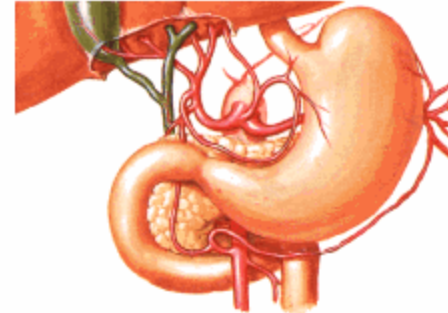
Replaced right hepatic artery takes origin from superior mesenteric; inferior pancreaticoduodenal and 1st jejunal arteries from replaced right hepatic artery



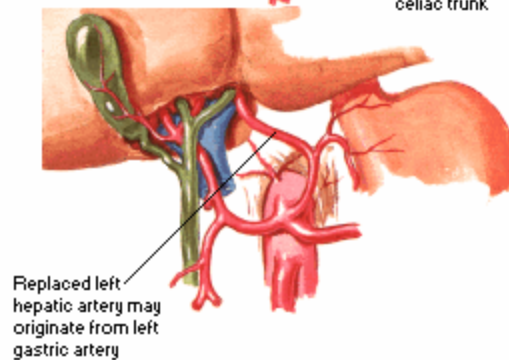
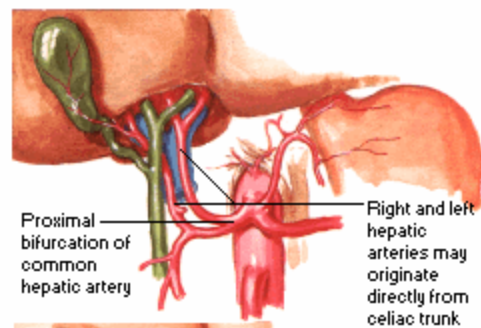
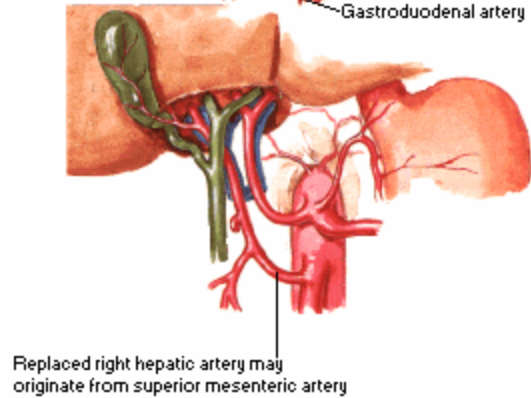
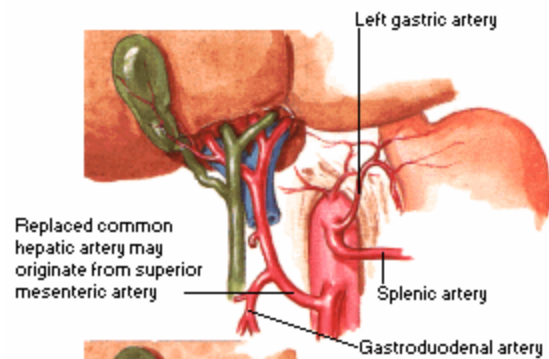
Accessory right hepatic artery takes origin from superior mesenteric artery

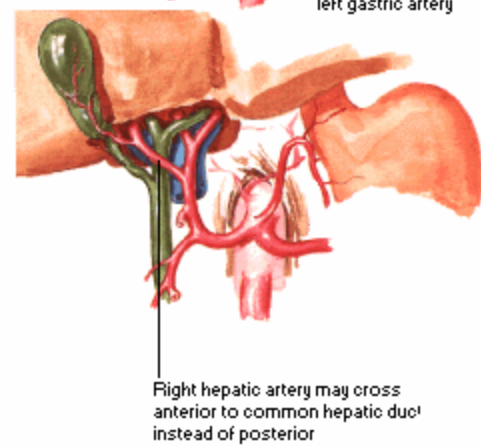
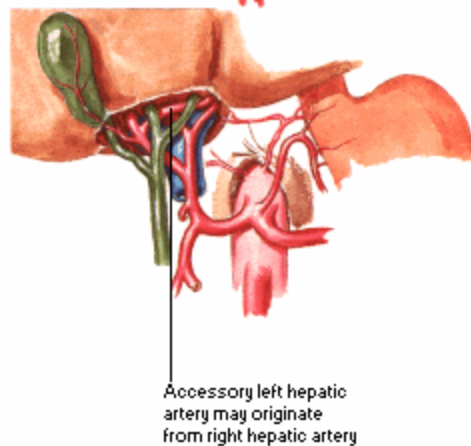
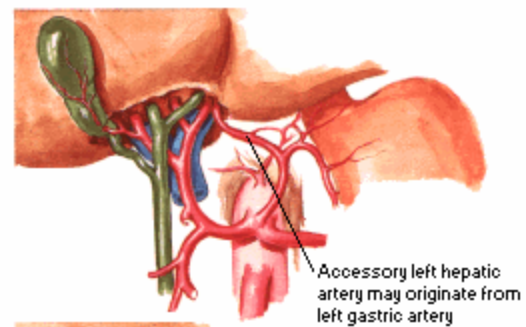
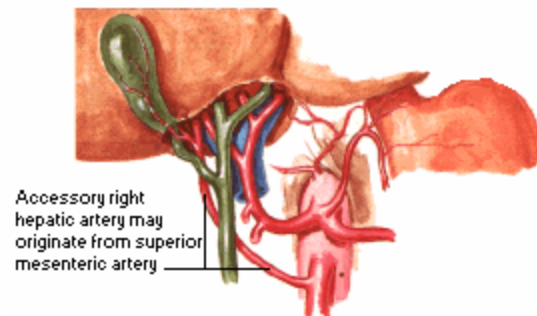


Accessory right hepatic artery takes origin from superior mesenteric; inferior pancreaticoduodenal arteries from accessory right hepatic; 1st jejunal artery from anterior inferior pancreaticoduodenal artery

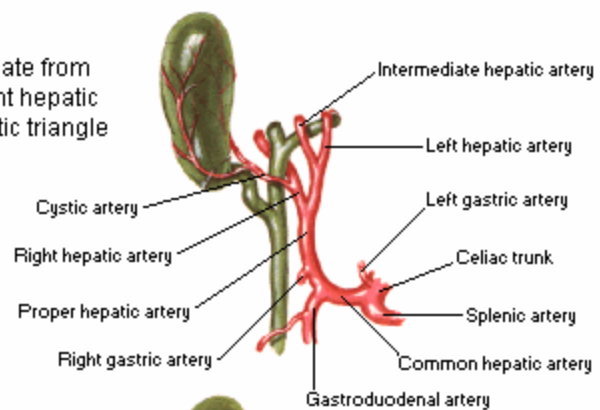


Right gastroepiploic (gastroepiploic) artery takes origin from superior mesenteric artery (note accessory left hepatic artery from left gastric)

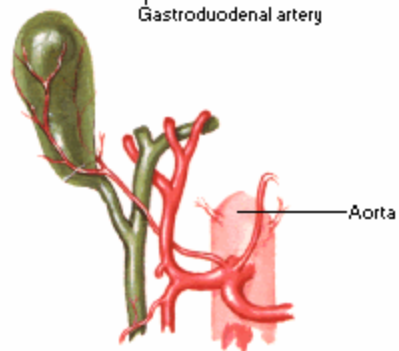




May originate from
normal right hepatic
outside cystic triangle



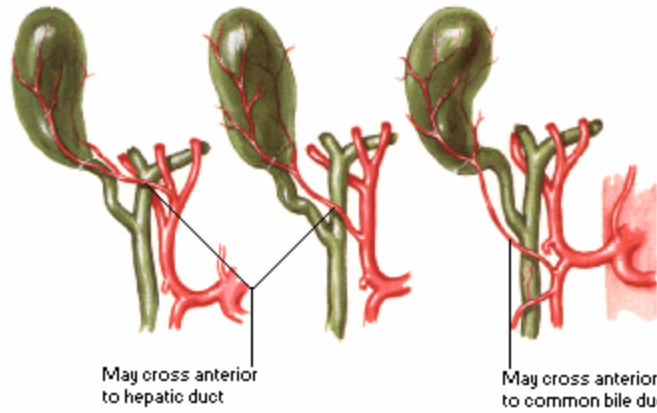
May originate from
celiac trunk (or
from aorta)



May originate from
intermediate (or
left) hepatic

May originate from
proper hepatic

May originate from
gastroduodenal



May originate in cystic triangle from aberrant right hepatic (from superior mesenteric)

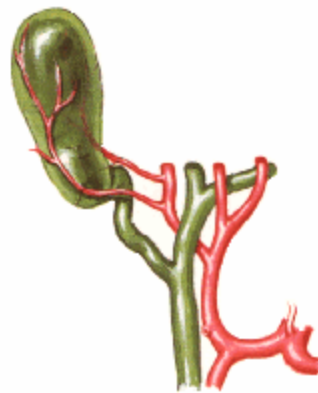


Superior mesenteric artery

May originate outside cystic triangle from aberrant right hepatic



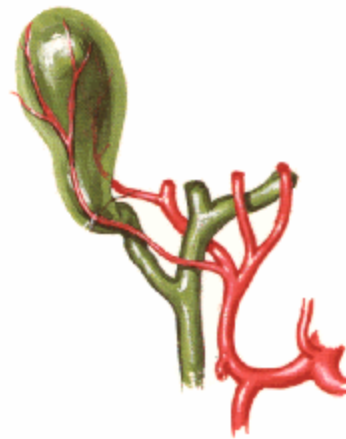
May cross anterior to hepatic duct



Double cystic artery; both
from normal right hepatic
in cystic triangle



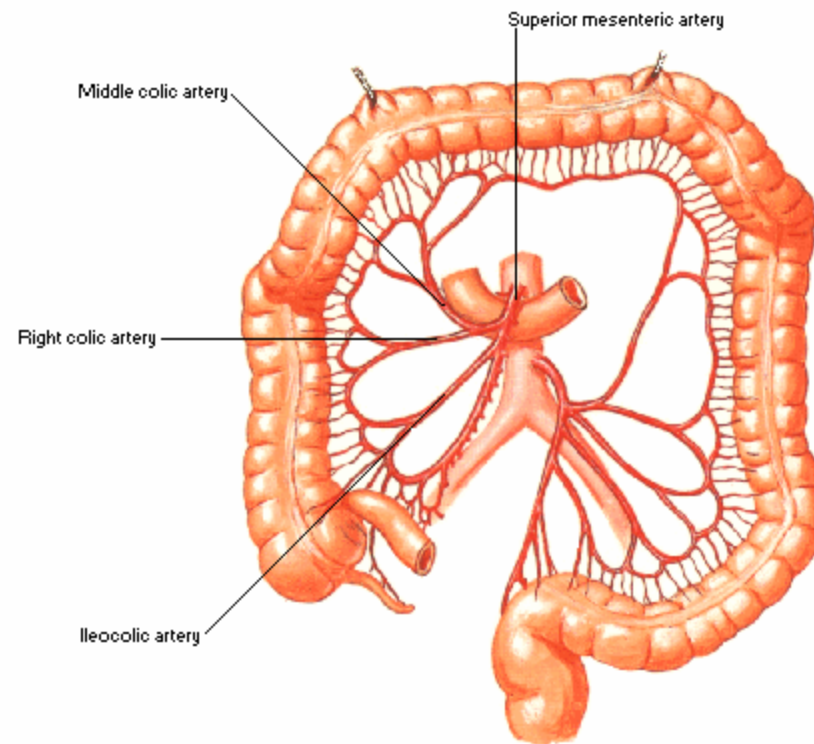
Double cystic artery; posterior
from right hepatic, anterior from
gastroduodenal



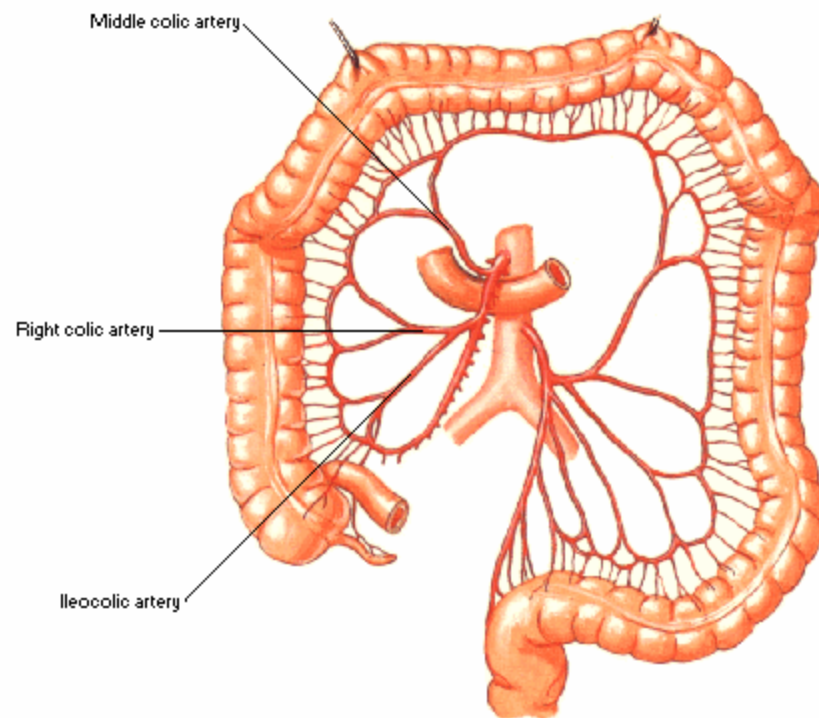
Double cystic artery; both from normal right hepatic, one inside and one outside cystic triangle



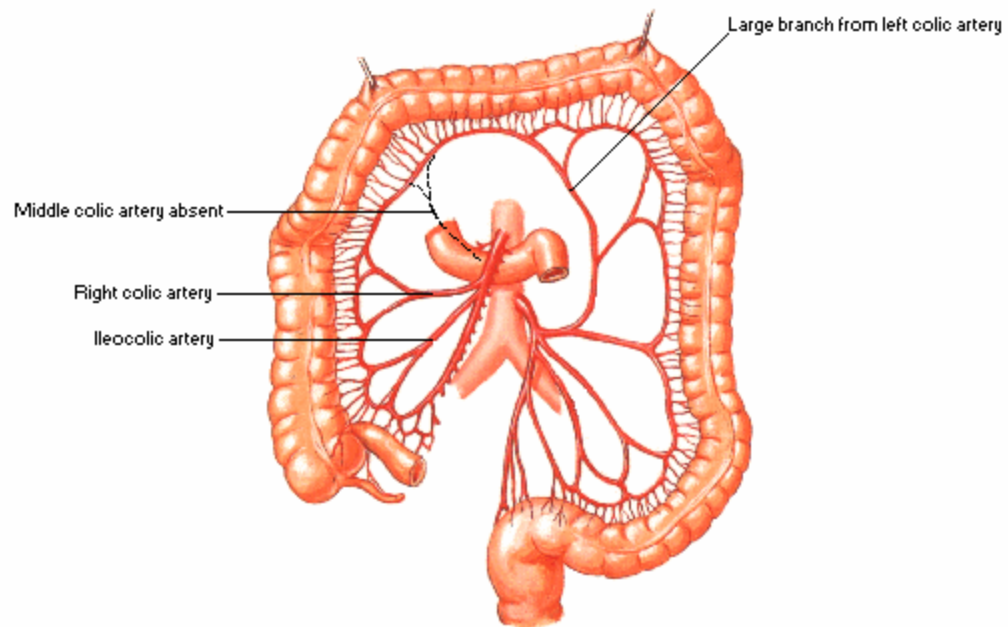
Double cystic artery; both from aberrant right hepatic, one inside and one outside cystic triangle



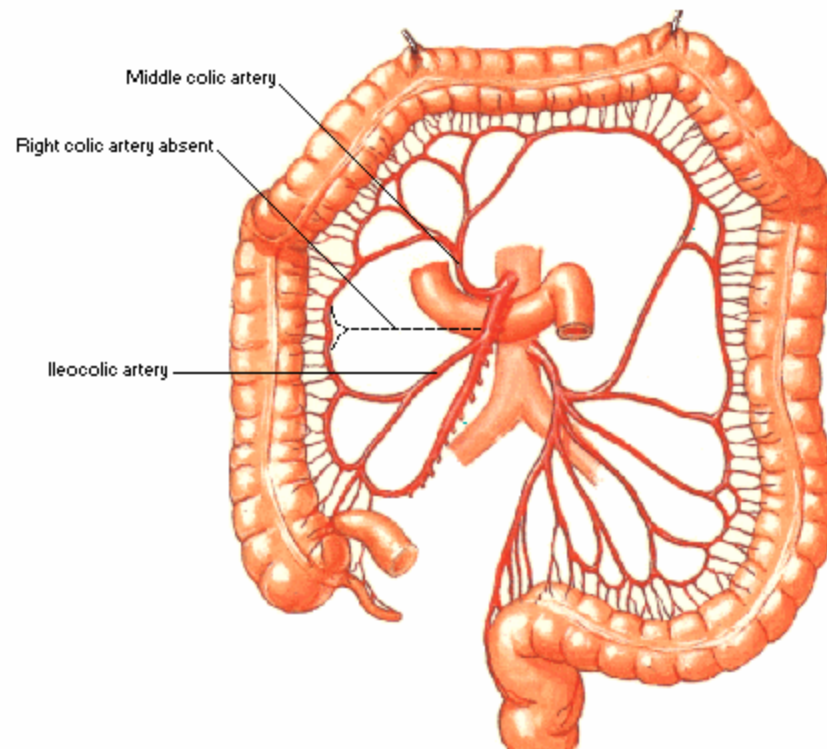
Common origin of right colic and middle colic arteries



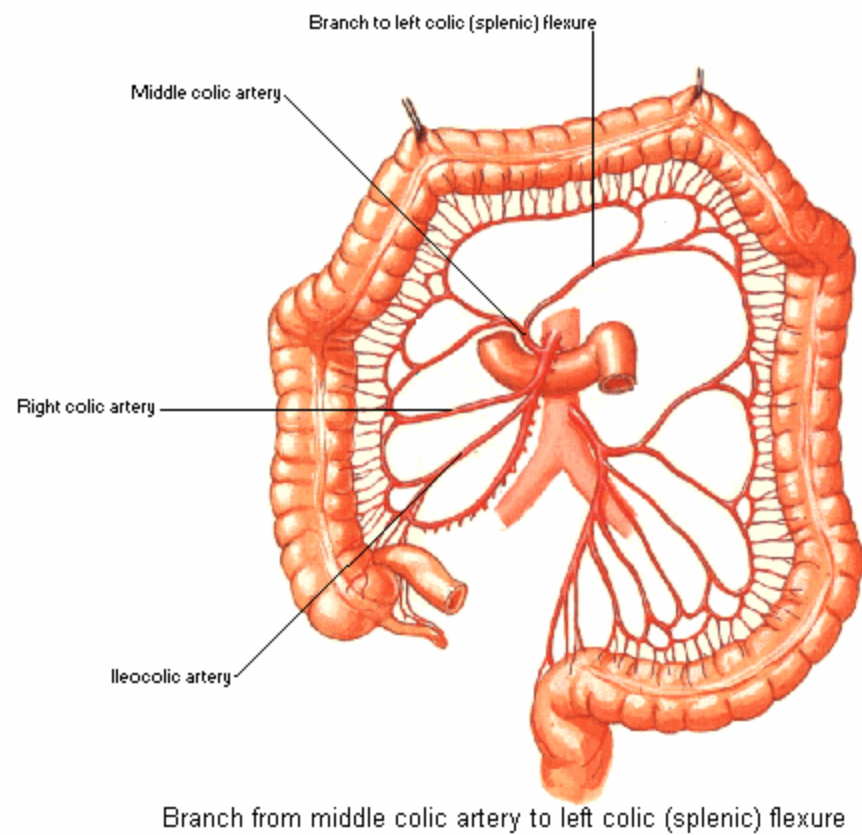
Common origin of right colic and ileocolic arteries

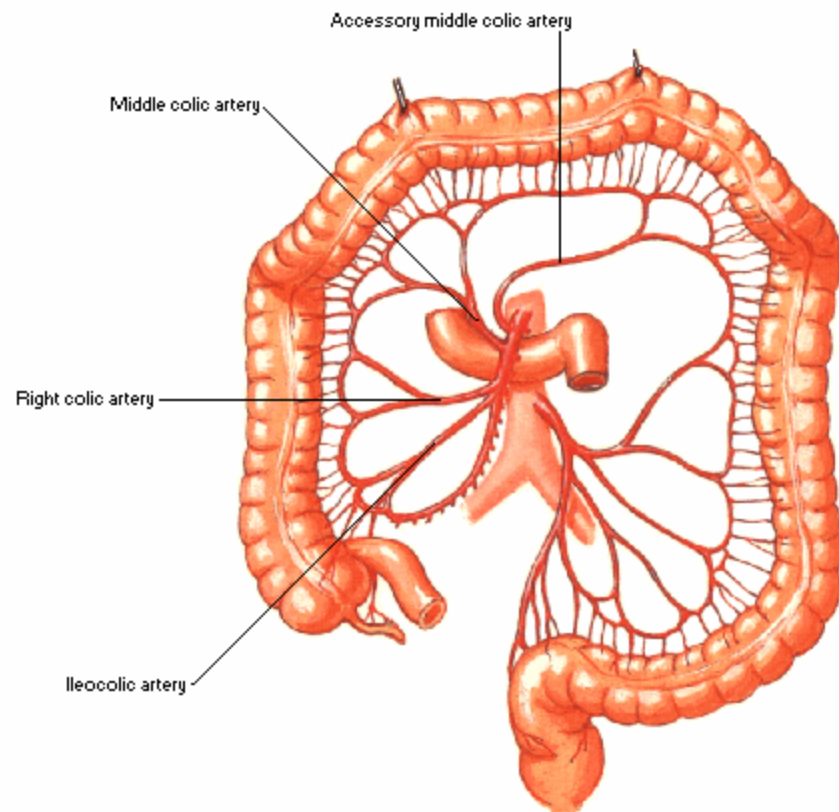


Absence of middle colic artery replaced by large branch from left colic artery

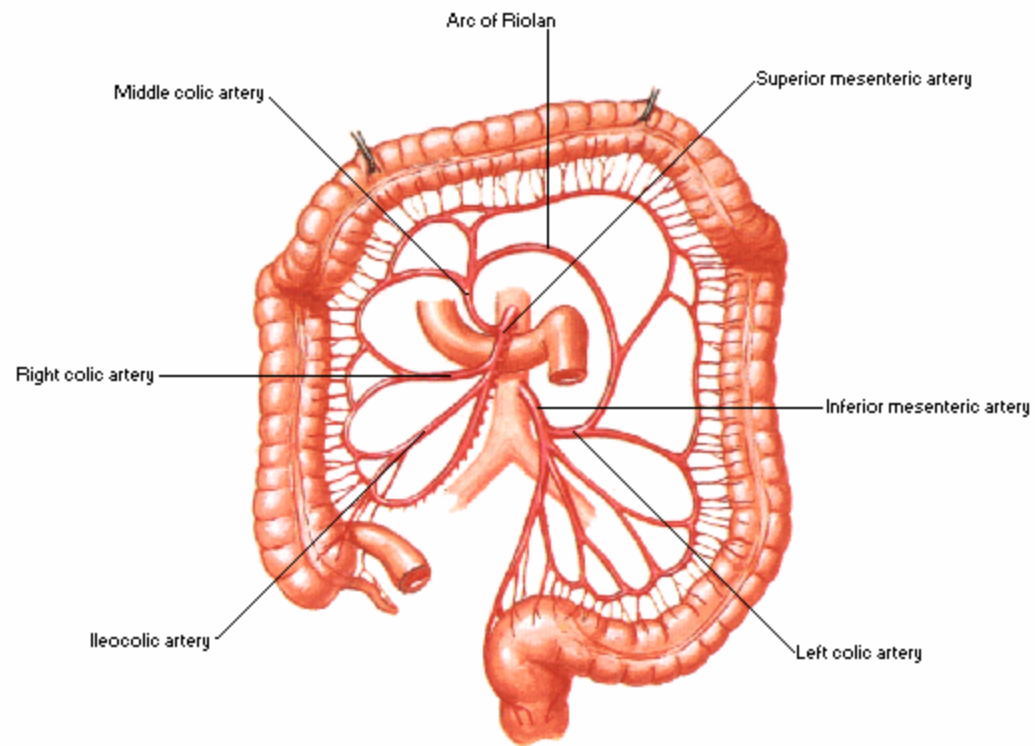


Absence of right colic artery

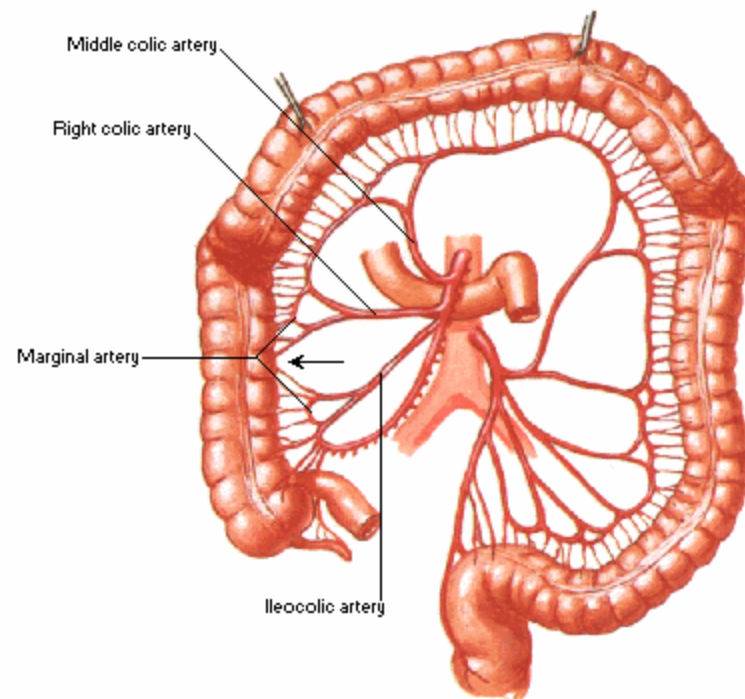




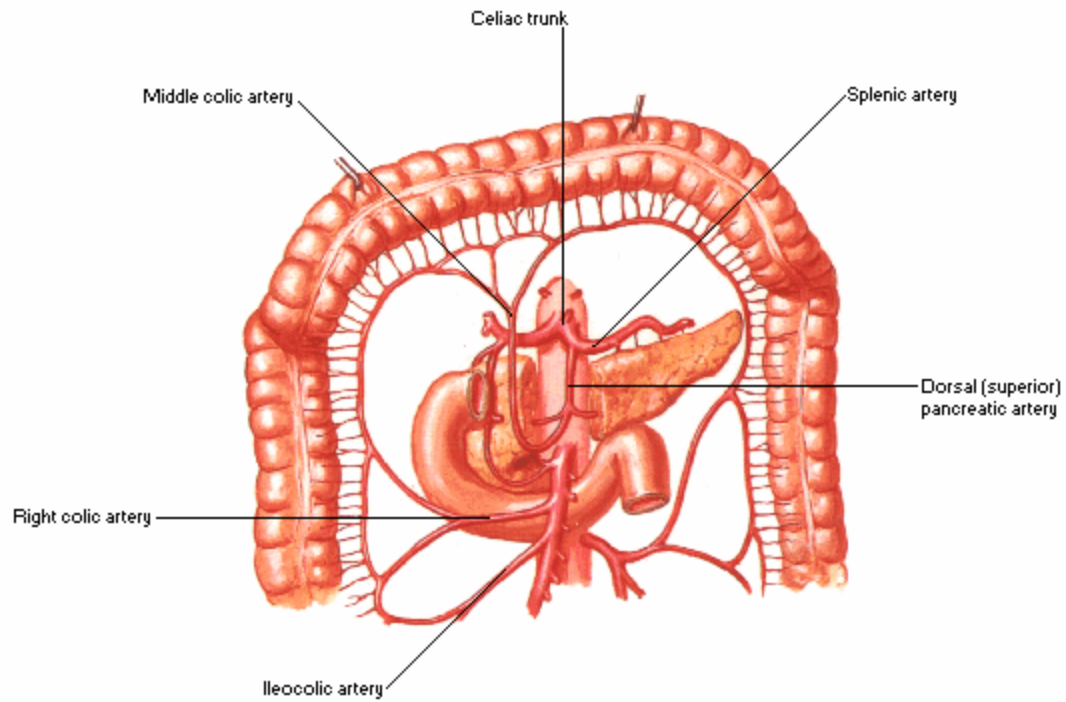
Accessory middle colic artery to left colic (splenic) flexure



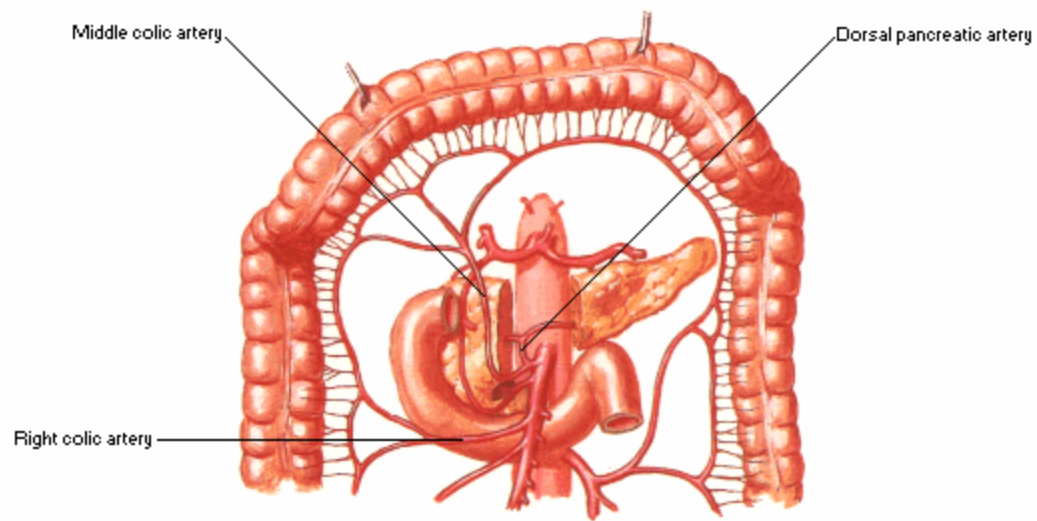
Arc of Riolan between middle colic artery and left colic artery



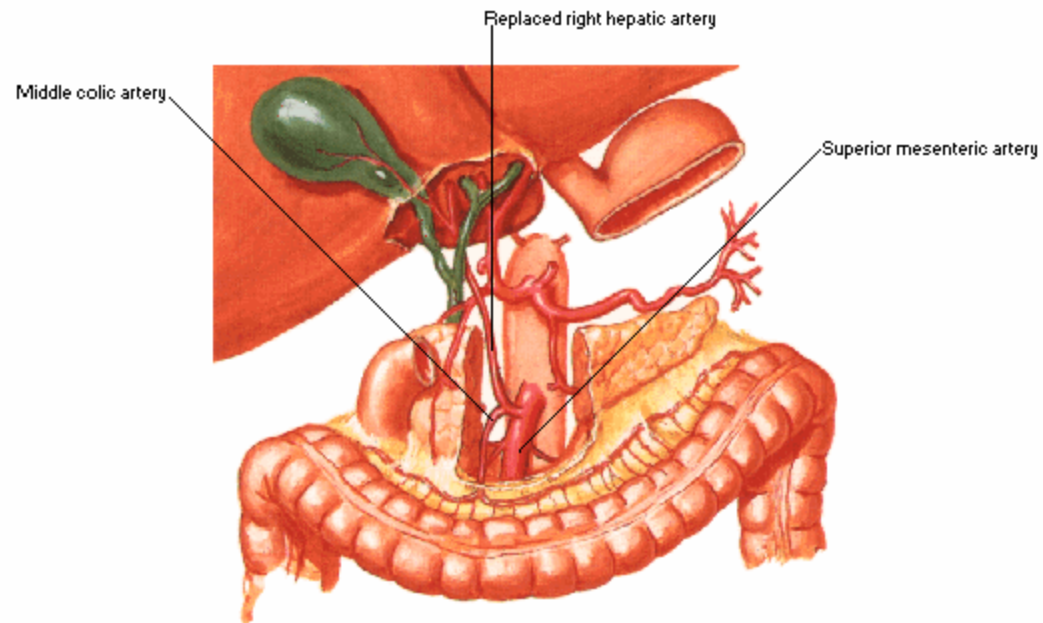
Discontinuity of marginal artery between right colic artery and ileocolic arteries



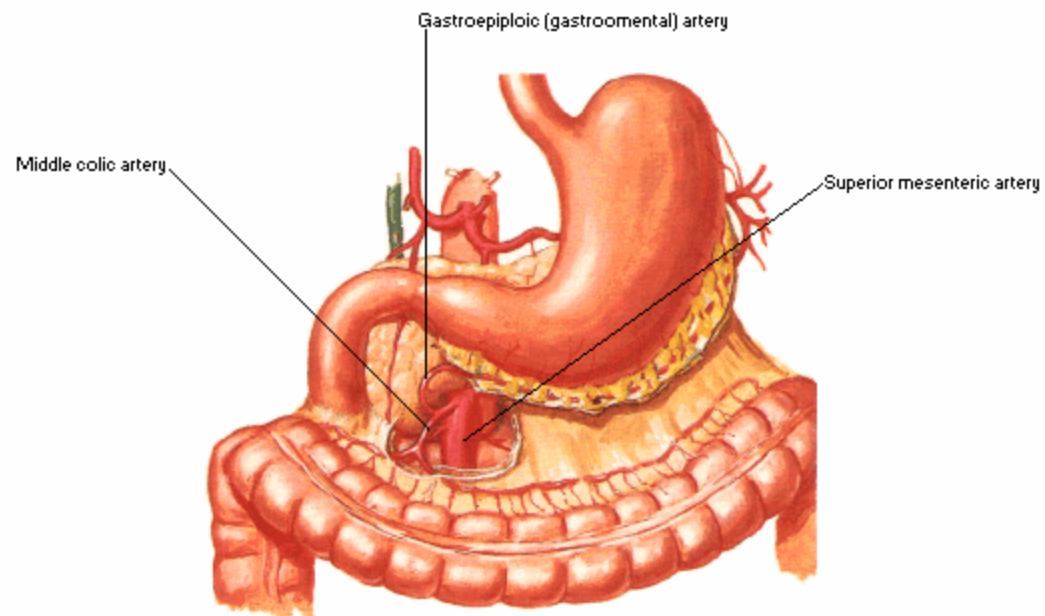
Middle colic artery originates from celiac trunk via dorsal pancreatic artery



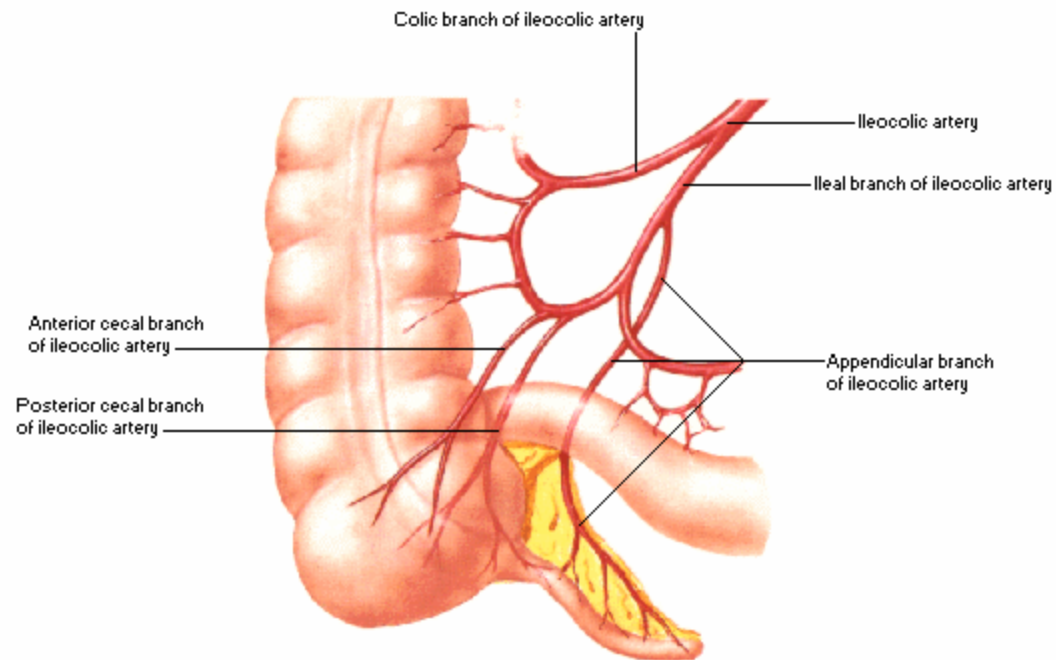
Middle colic artery gives origin to dorsal pancreatic artery



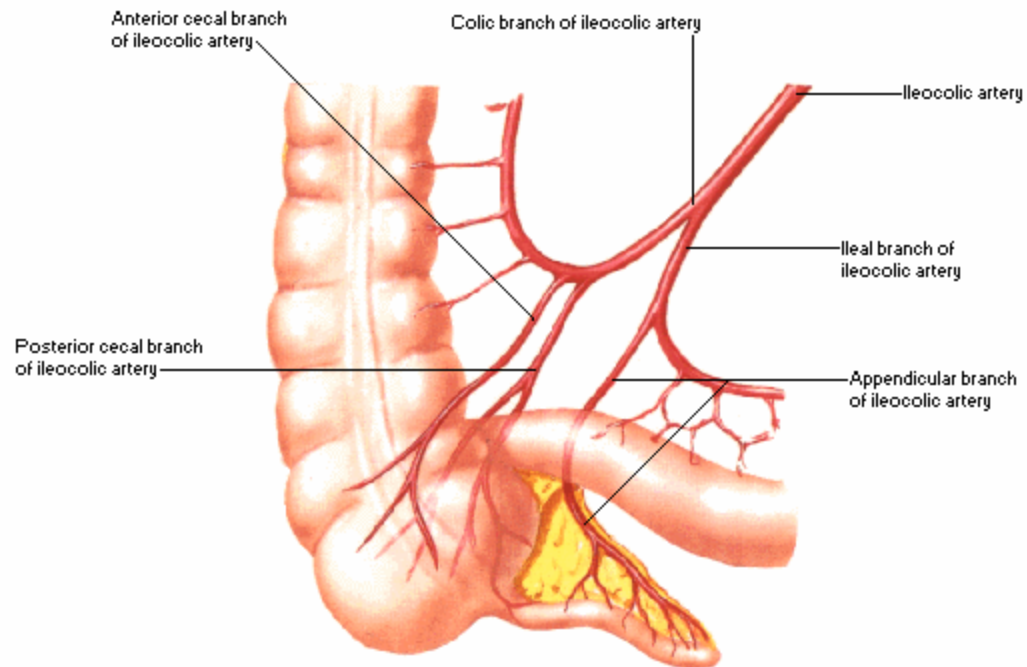
Middle colic artery originates from or with replaced right hepatic artery (from superior mesenteric artery)



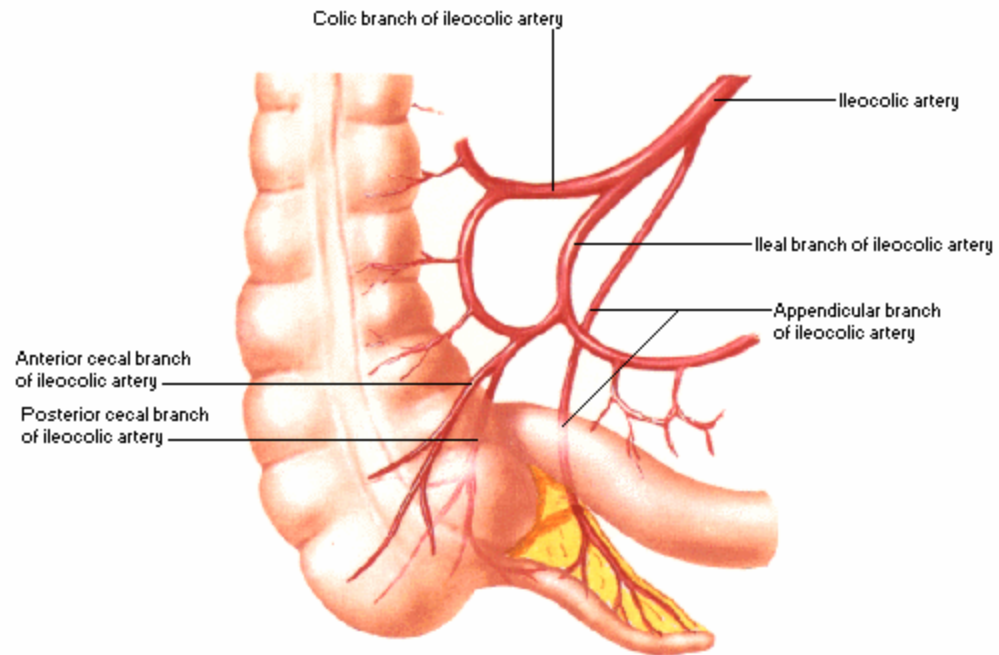
Middle colic artery has common origin with right gastroduodenal (gastrointestinal) artery from superior mesenteric artery



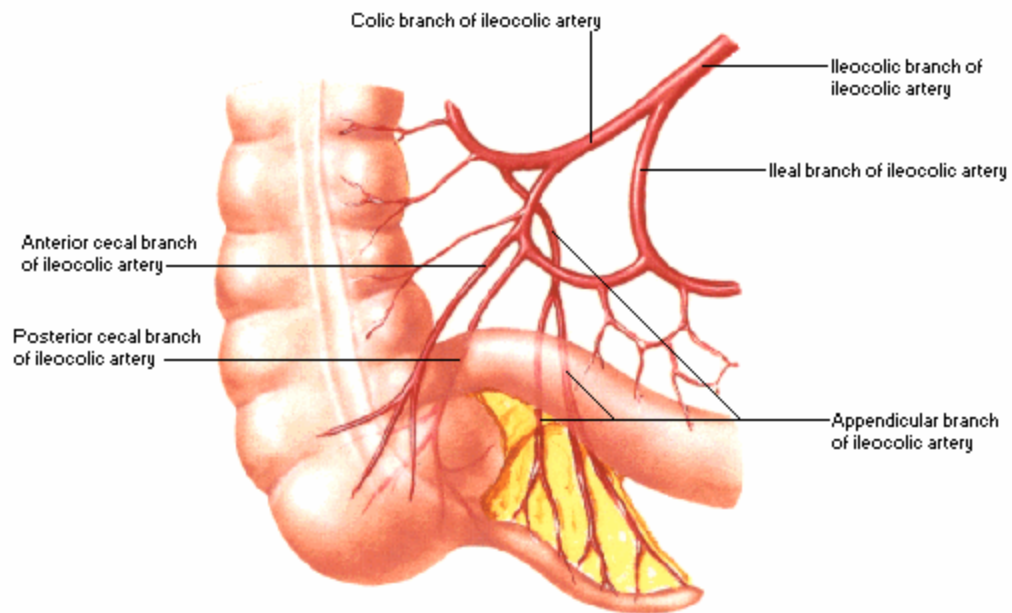
Anterior cecal and posterior cecal arteries originate from arcade between colic and ileal branches of ileocolic; appendicular artery from ileal branch



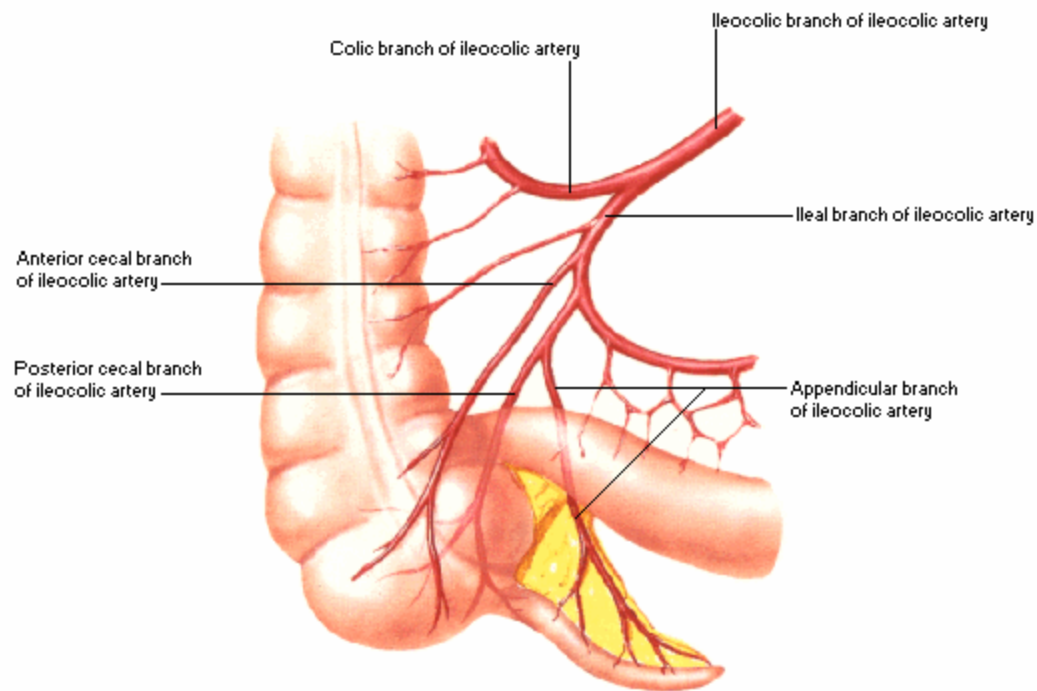
Anterior cecal and posterior cecal arteries originate from colic branch; appendicular artery from ileal branch of ileocolic artery



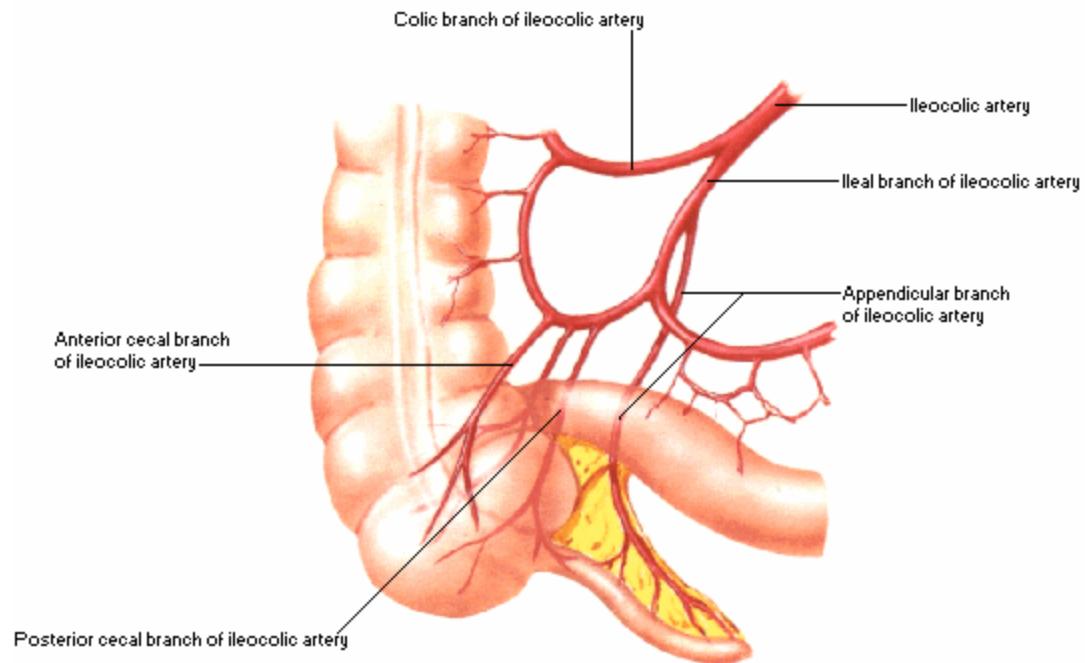
Anterior cecal and posterior cecal arteries have common origin from arcade; appendicular artery from ileocolic artery proper



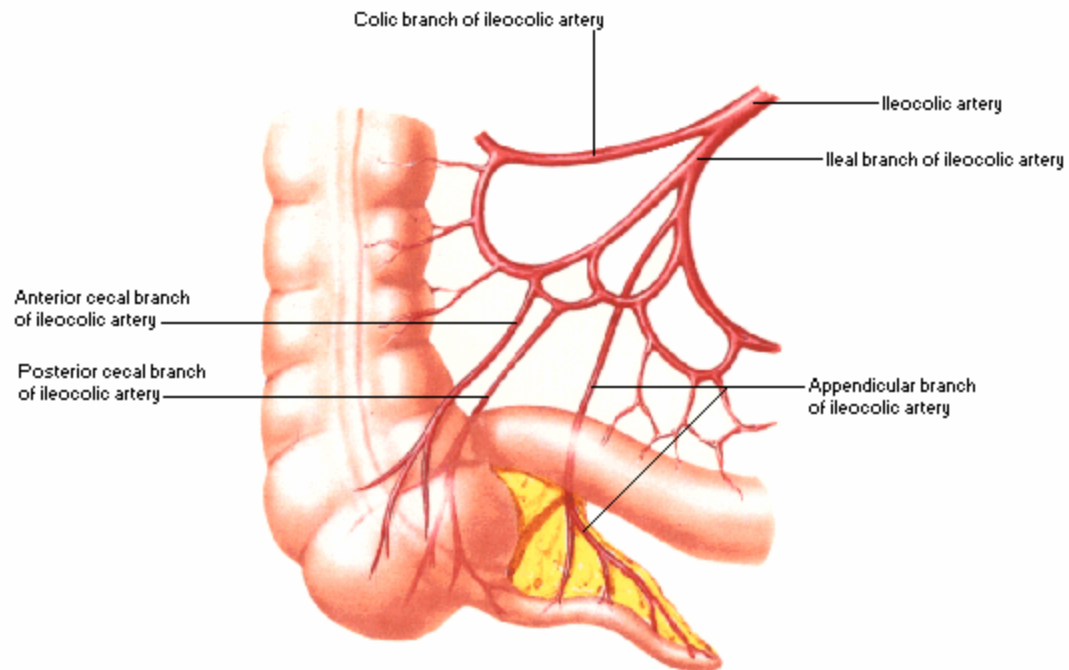
Anterior cecal and posterior cecal arteries originate from arcade between colic and ileal branches of ileocolic artery; appendicular artery from colic branch bifurcates high



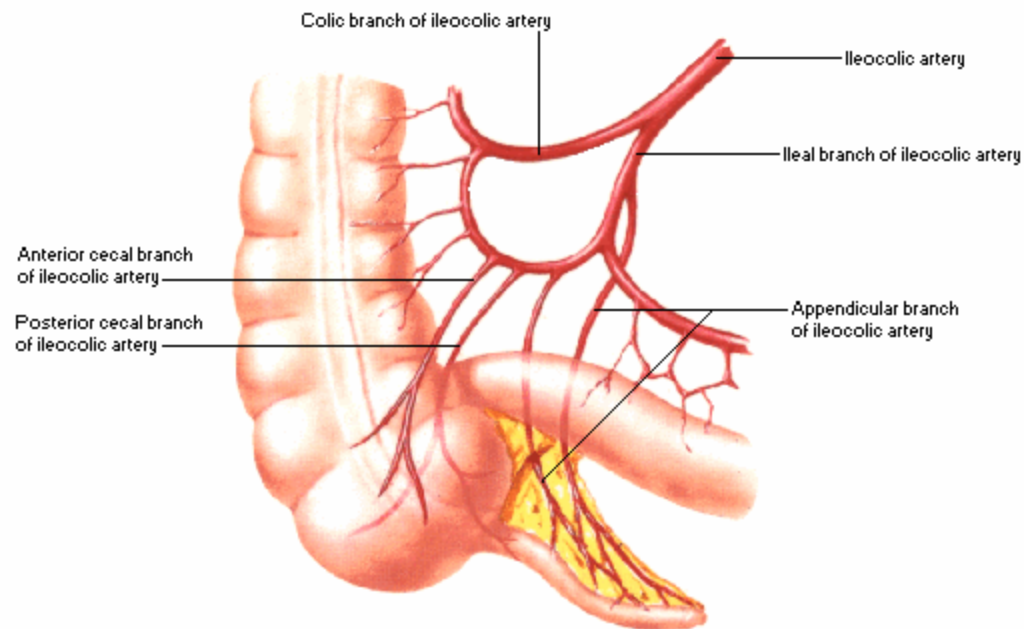
Anterior cecal and posterior cecal arteries originate from ileal branch of ileocolic artery; appendicular artery from posterior cecal artery



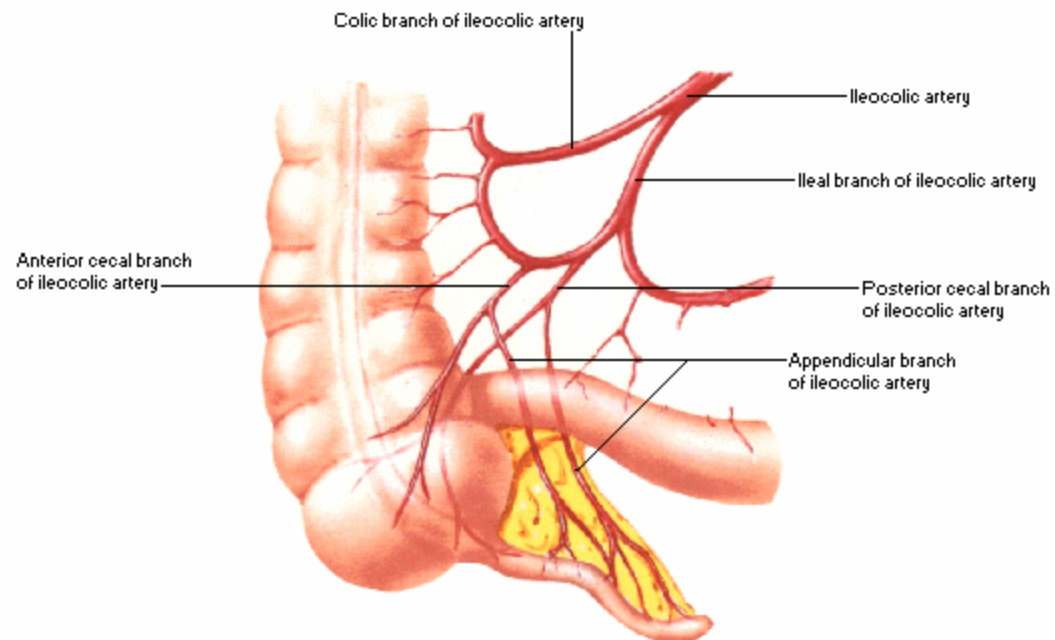
Anterior cecal and two posterior cecal arteries originate from arcade; appendicular artery from ileal branch of ileocolic artery



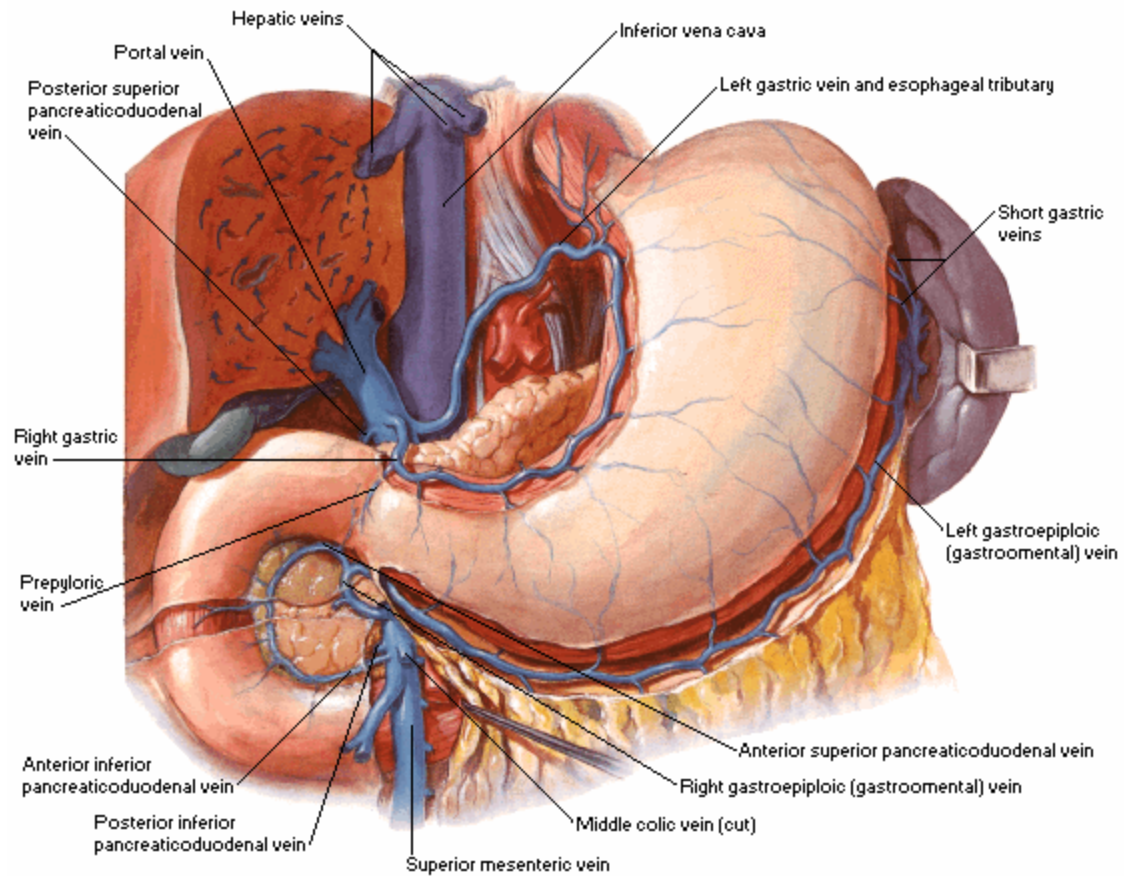
Multiple arcades between ileal branch and colic branch of ileocolic artery; anterior cecal and posterior cecal arteries originate from these arcades; appendicular artery from ileal branch of ileocolic artery

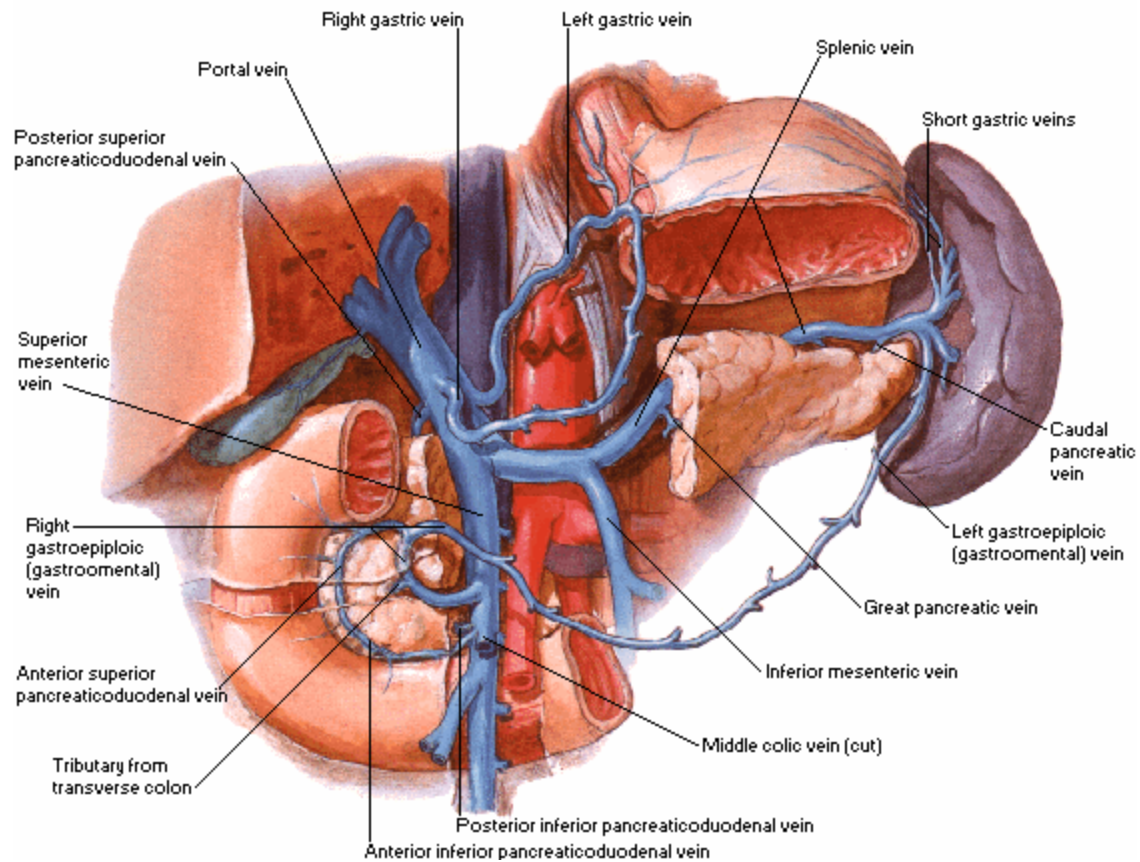


Anterior cecal and posterior cecal arteries originate from arcade between colic and ileal branches of ileocolic artery; two appendicular arteries. one from arcade. one from ileal branch of ileocolic artery

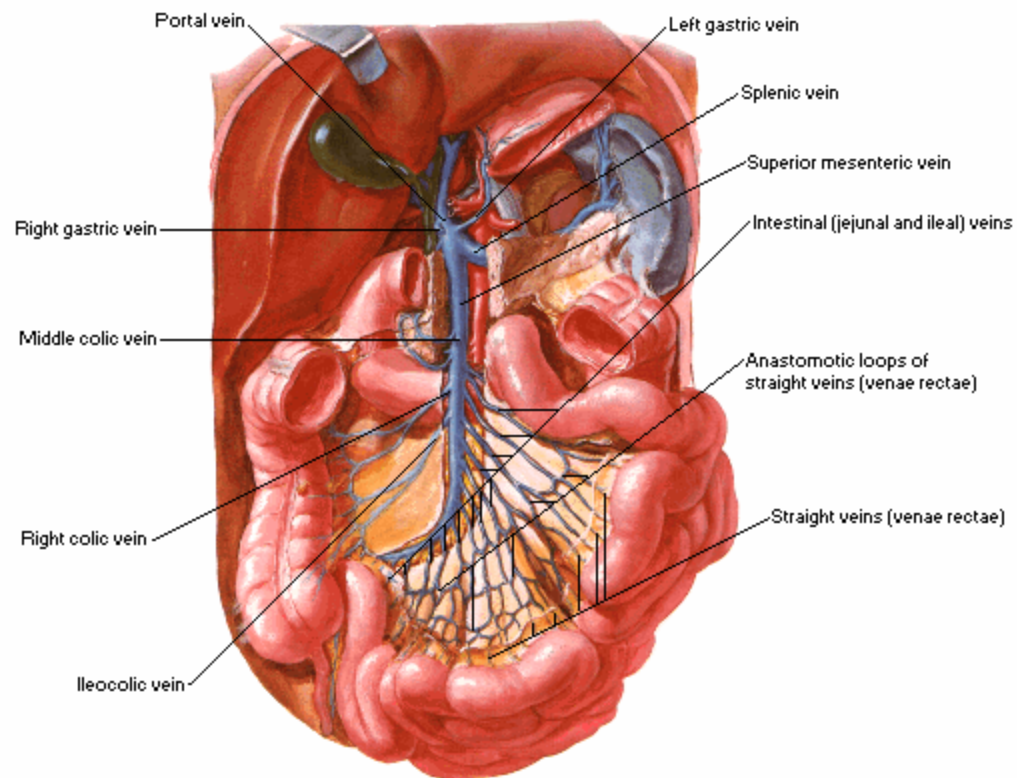


Anterior cecal and posterior cecal arteries originate from arcade; two appendicular arteries, one from anterior cecal, other from posterior cecal artery

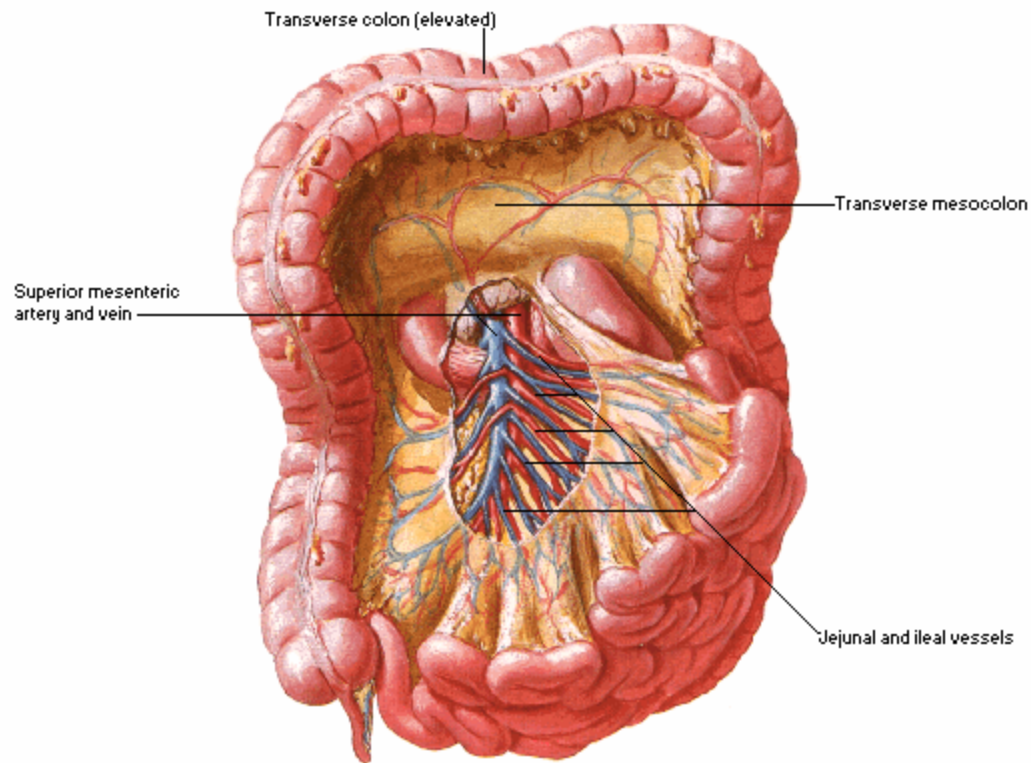




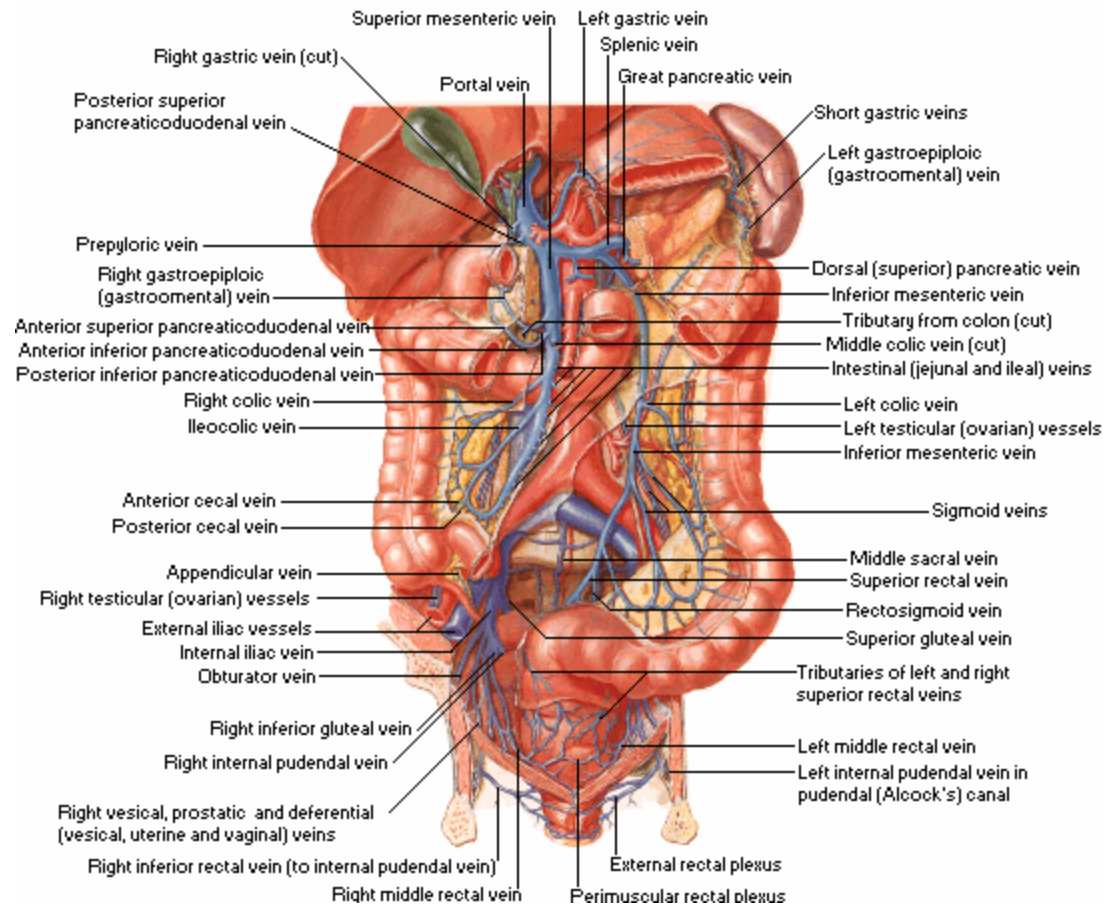
Transverse Colon Cut



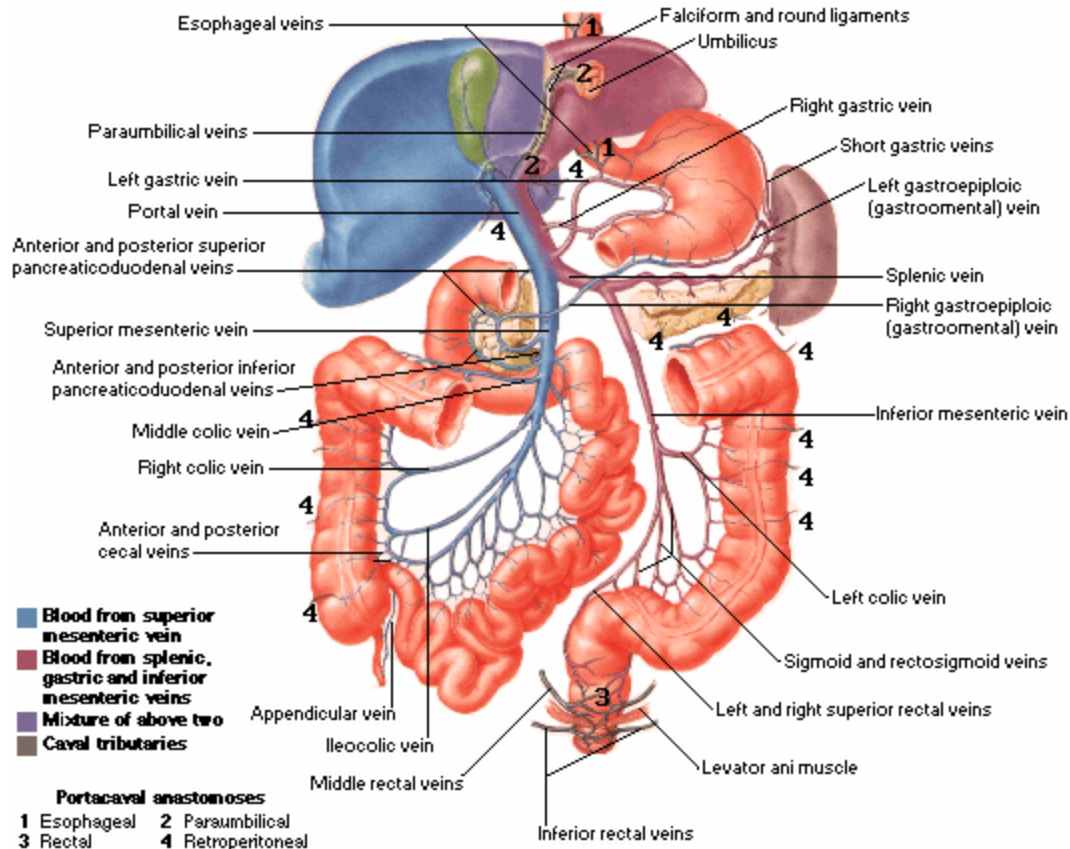
Transverse Colon Elevated

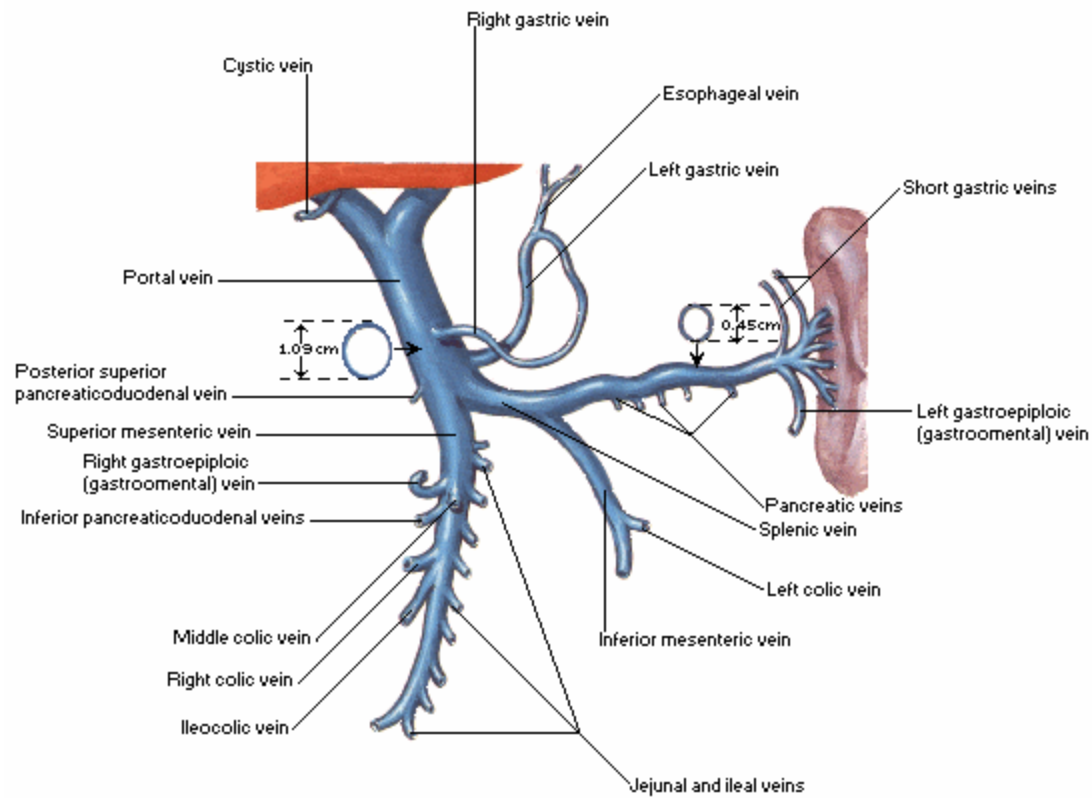


Relations of superior mesenteric vein and artery in root of mesentery

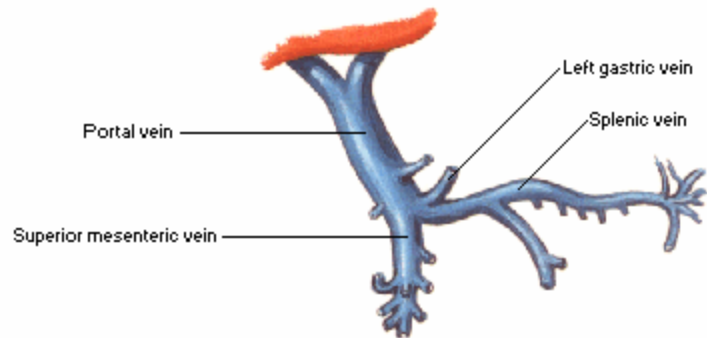


Portacaval Anastomoses

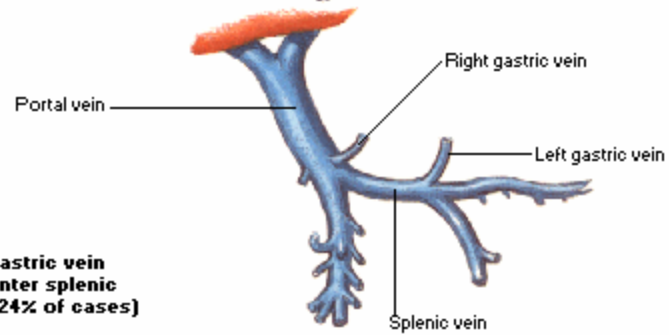


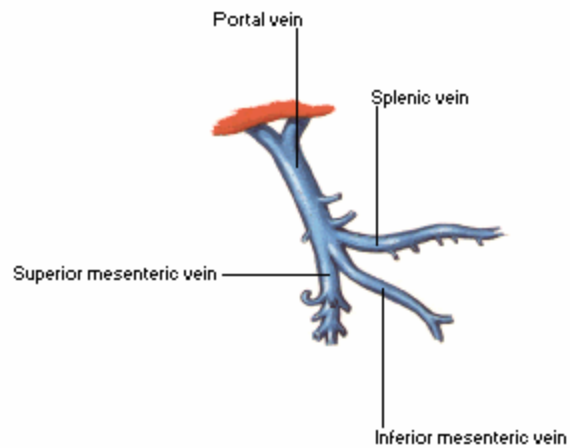


Left gastric vein often enters junction of splenic and superior mesenteric

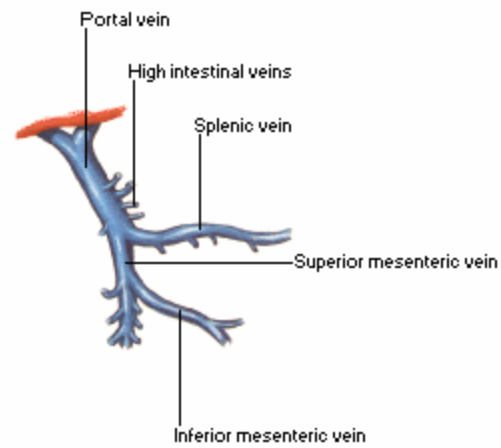


Left gastric vein may enter splenic vein (24% of cases)





Inferior mesenteric vein may enter junction of splenic and superior mesenteric veins



Inferior mesenteric vein may enter superior mesenteric vein

Portal vein anterior to head
of pancreas and 1st part
of duodenum



Portal vein may enter
inferior vena cava (hepatic
arteries enlarged)

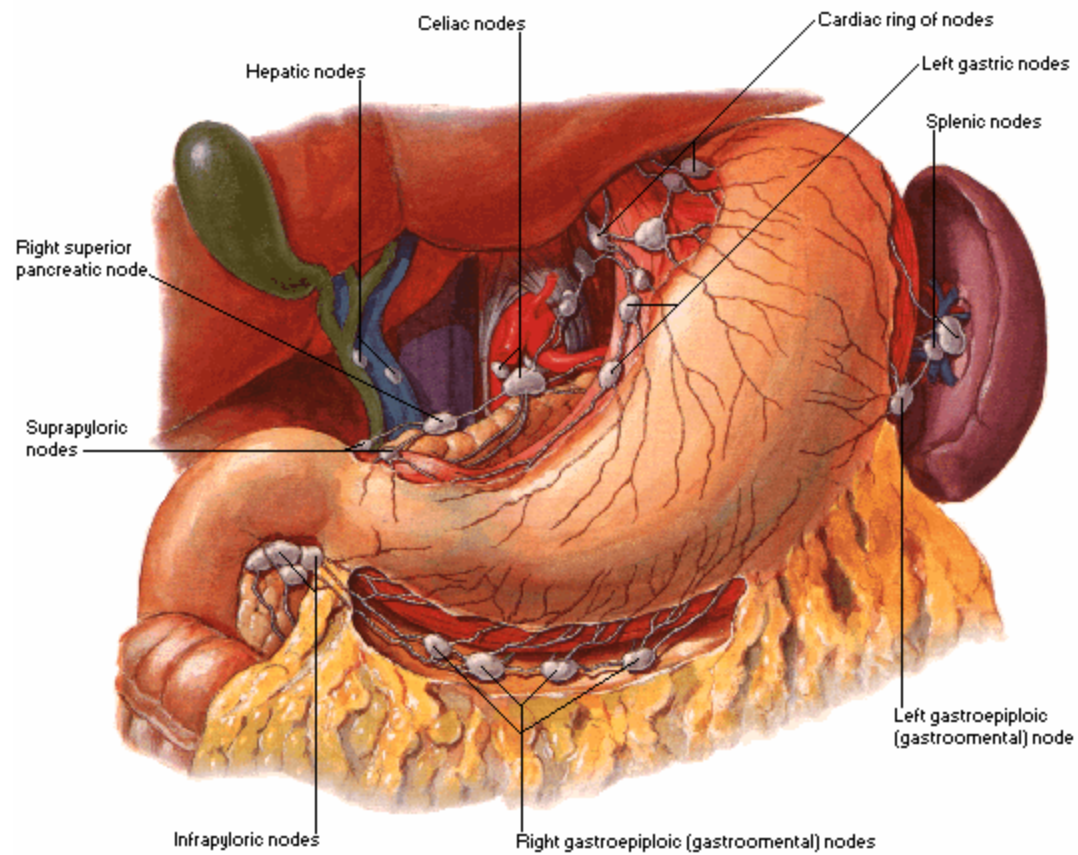


Pulmonary vein may
enter portal vein

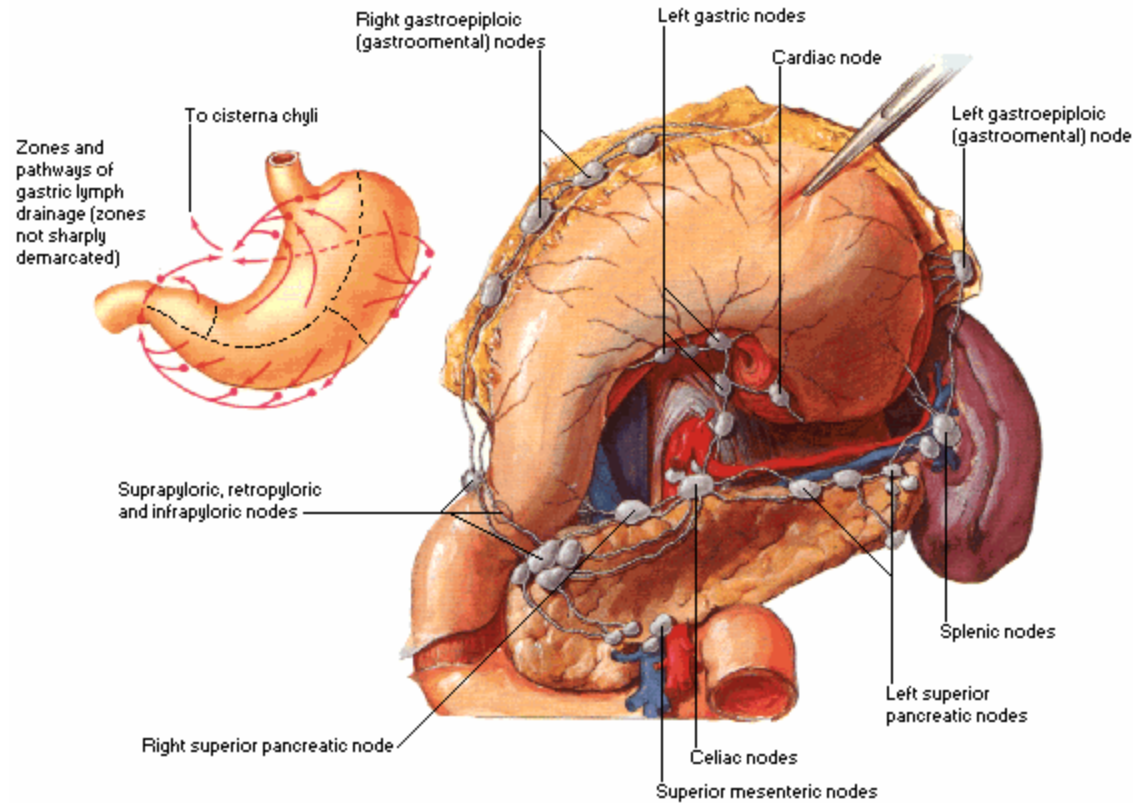


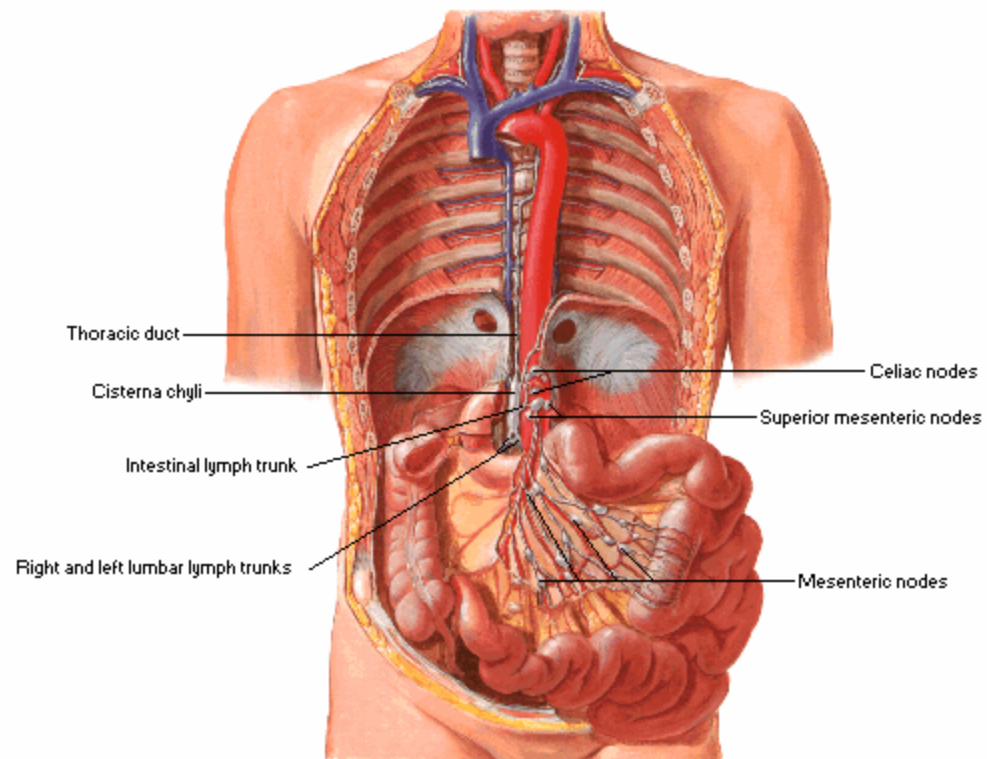
Congenital stricture
of portal vein

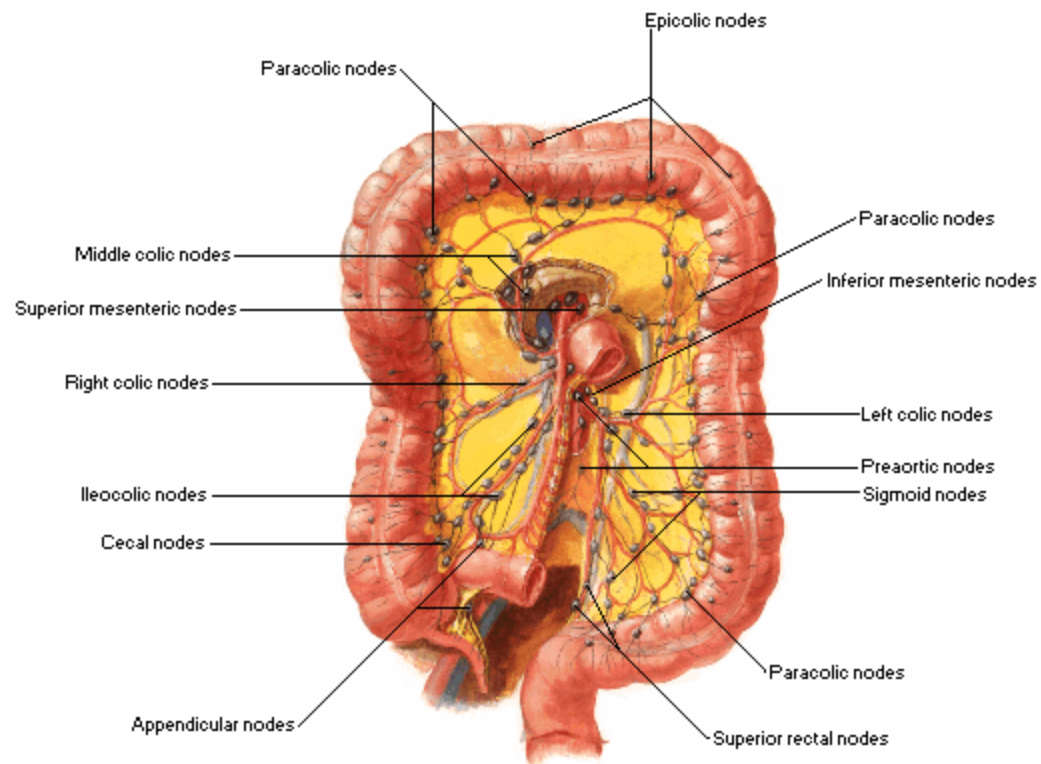


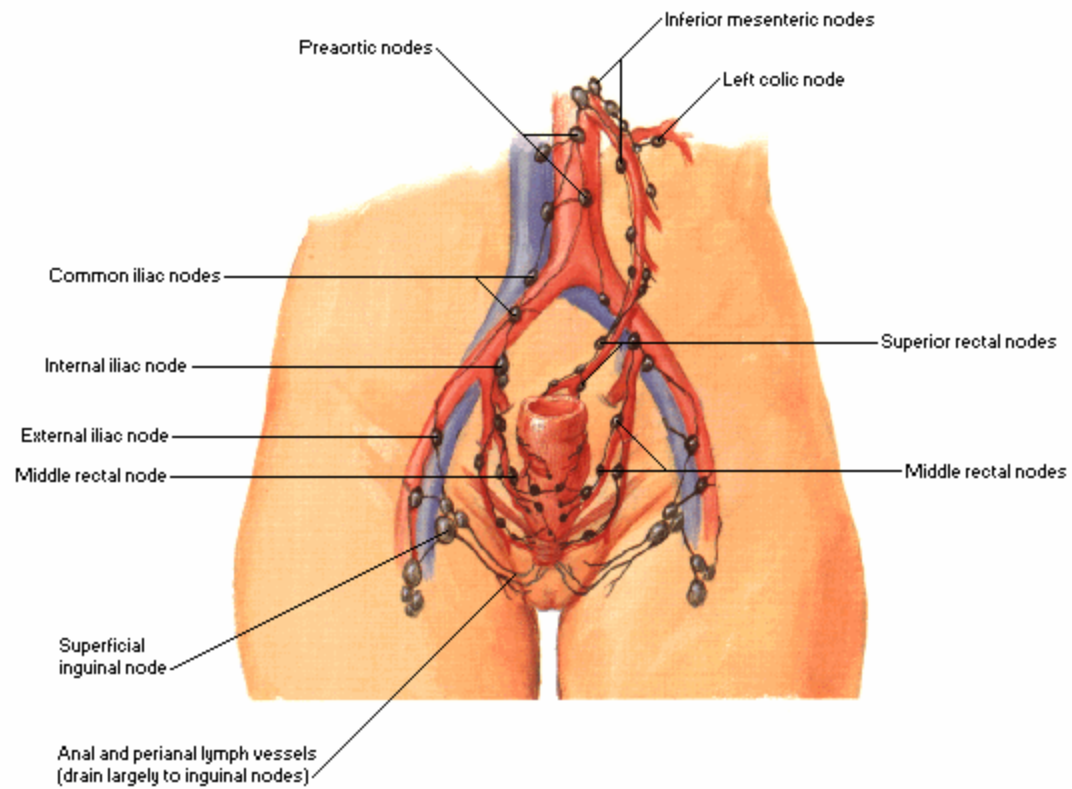


Stomach Reflected

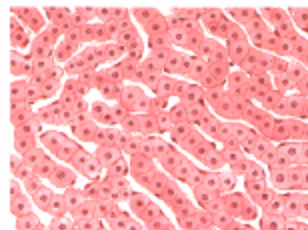




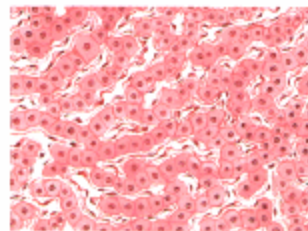




Histology

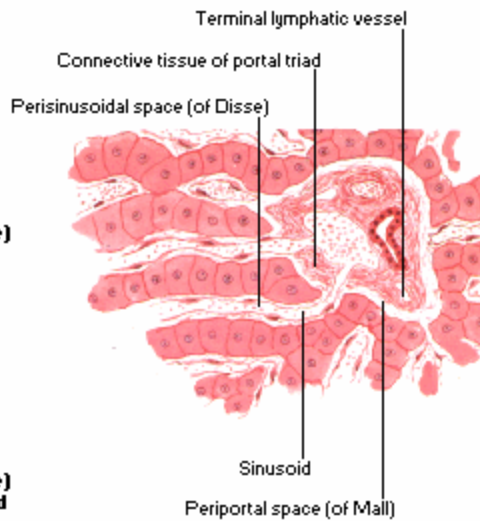


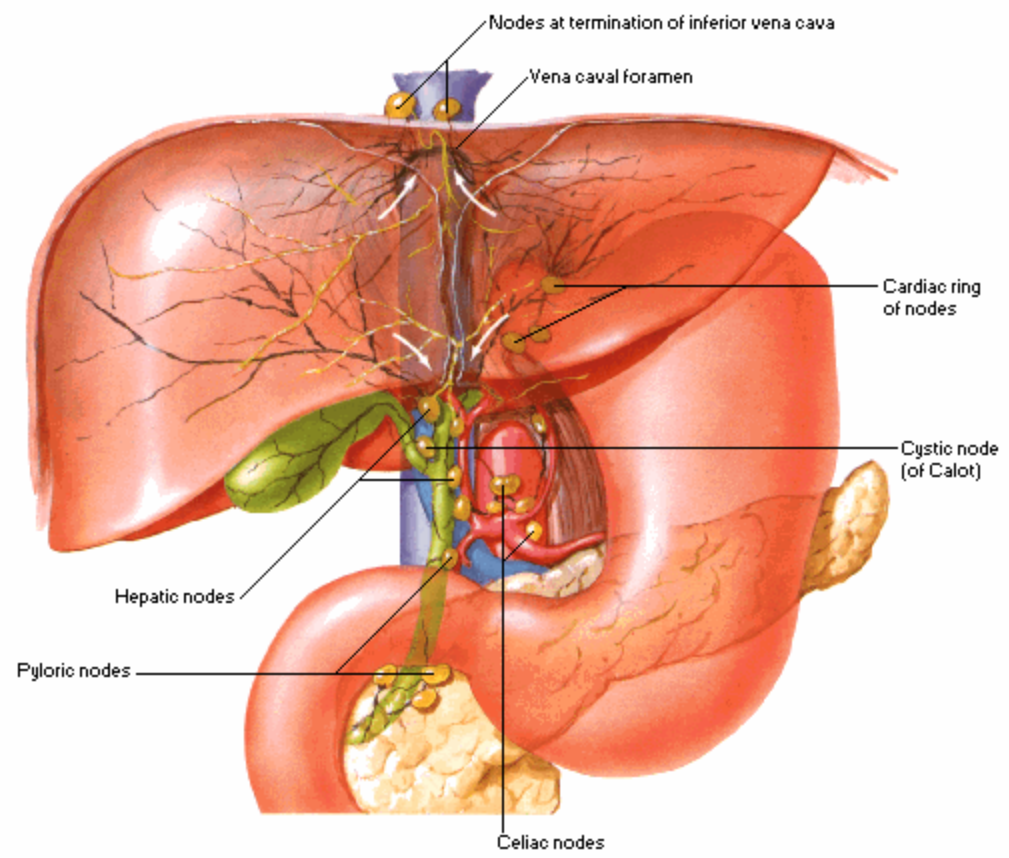
Perisinusoidal spaces (of Disse) very narrow or obliterated



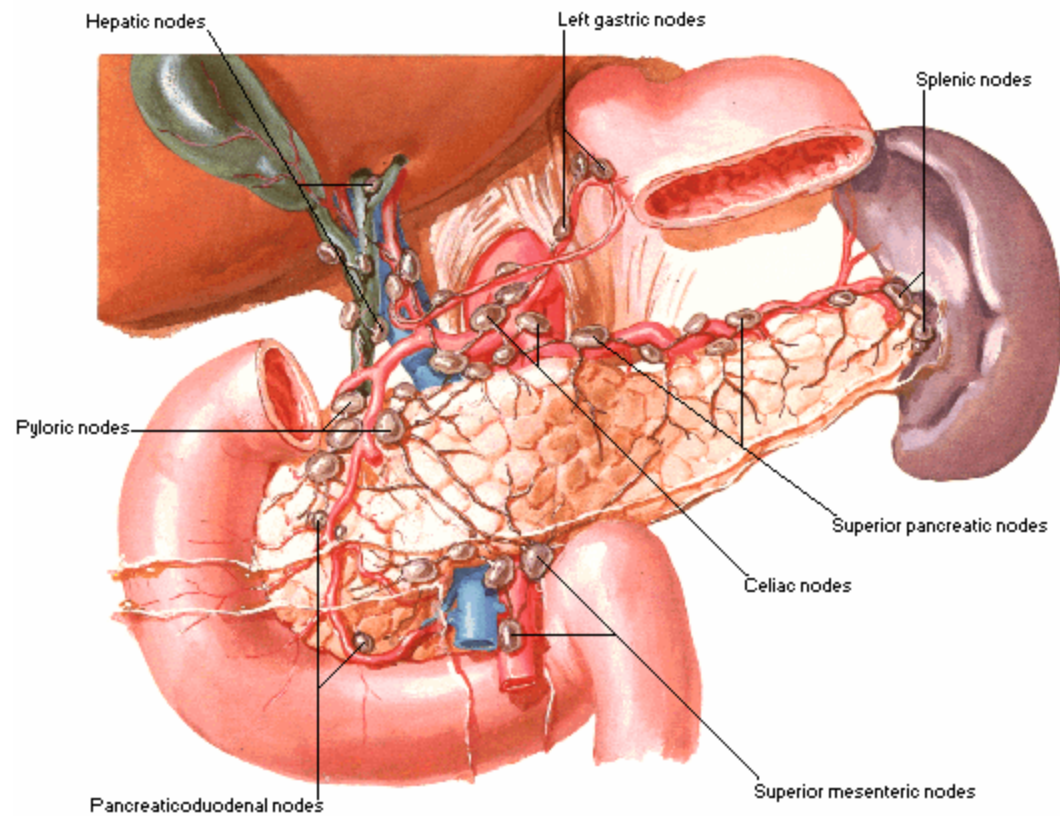
Perisinusoidal spaces (of Disse) markedly widened

Low - power sections of liver

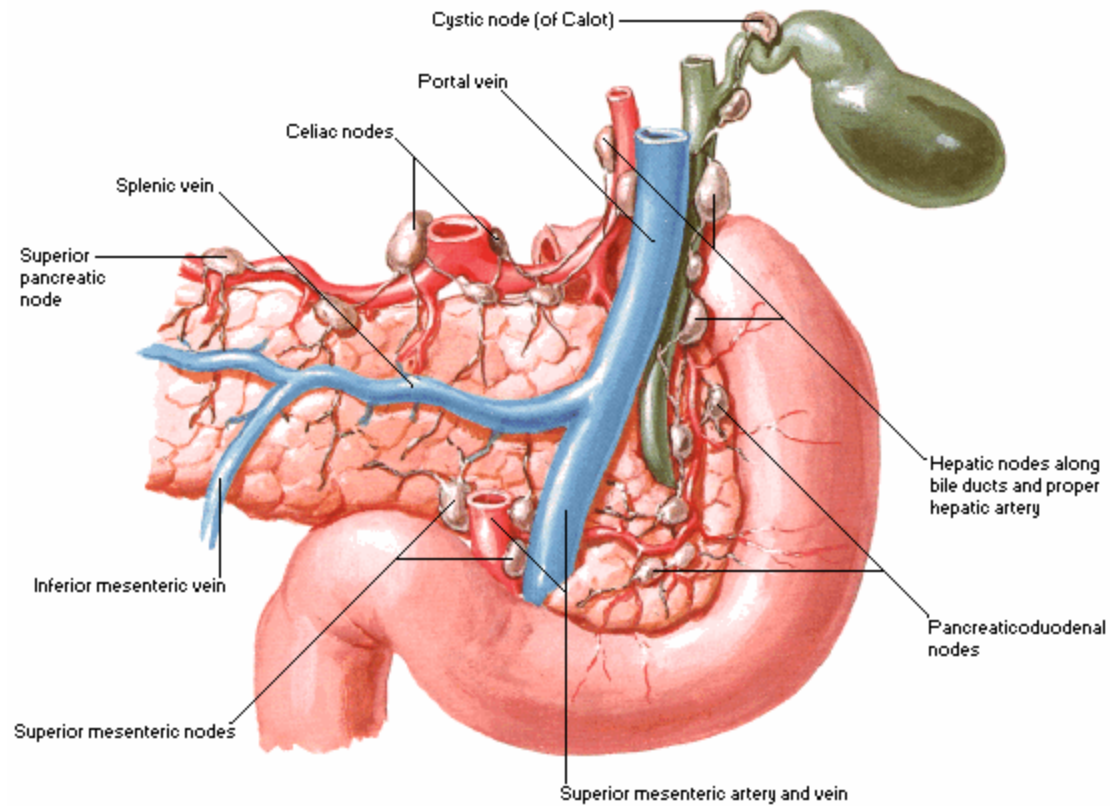


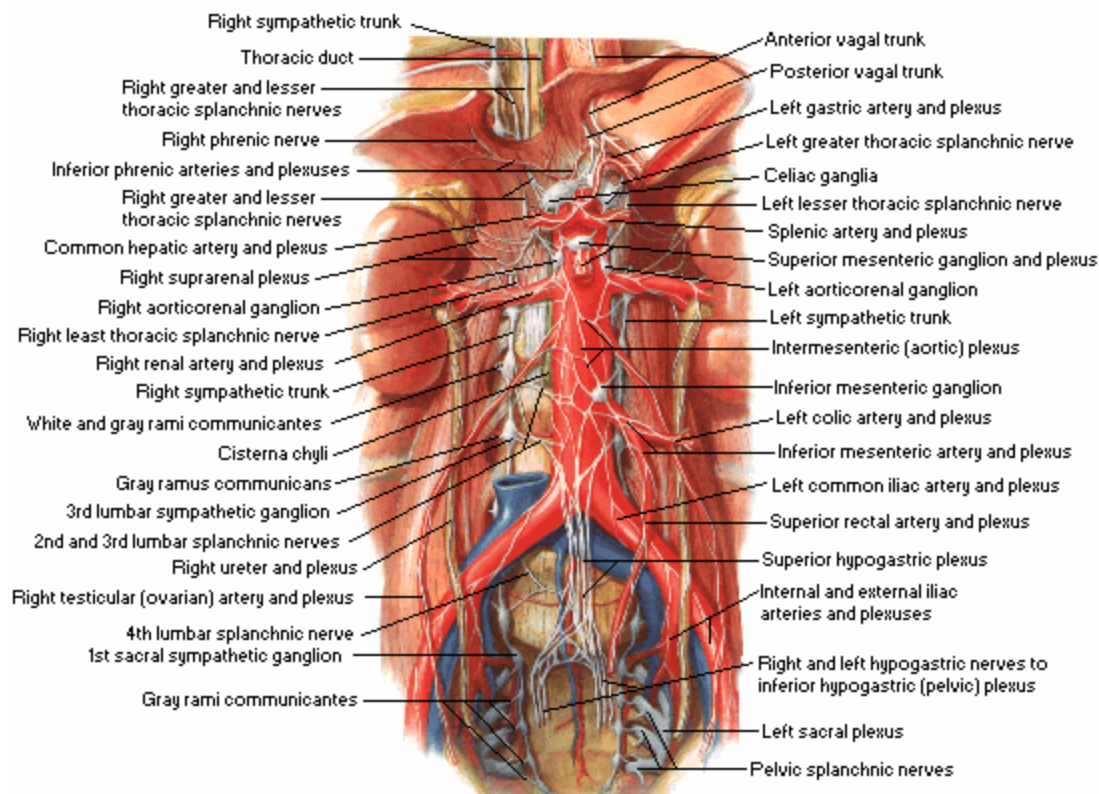


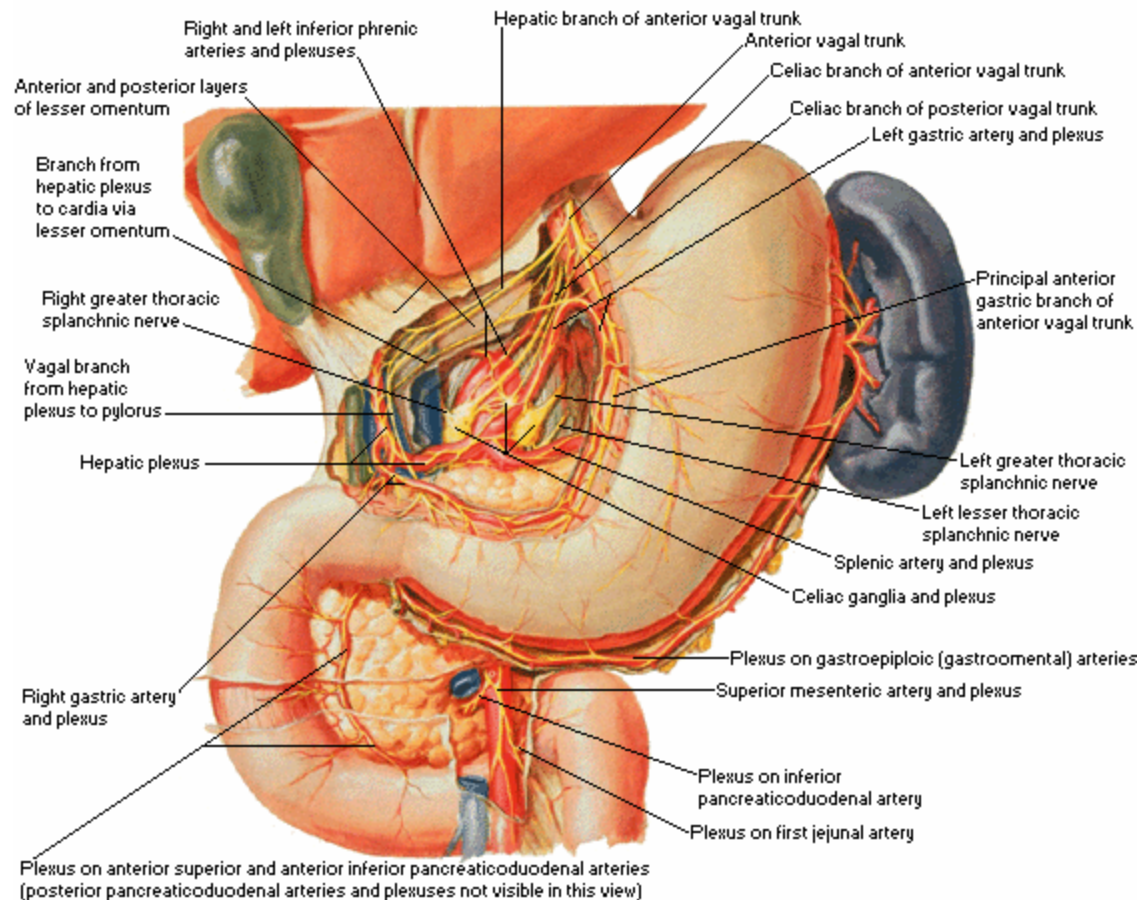
Anterior View



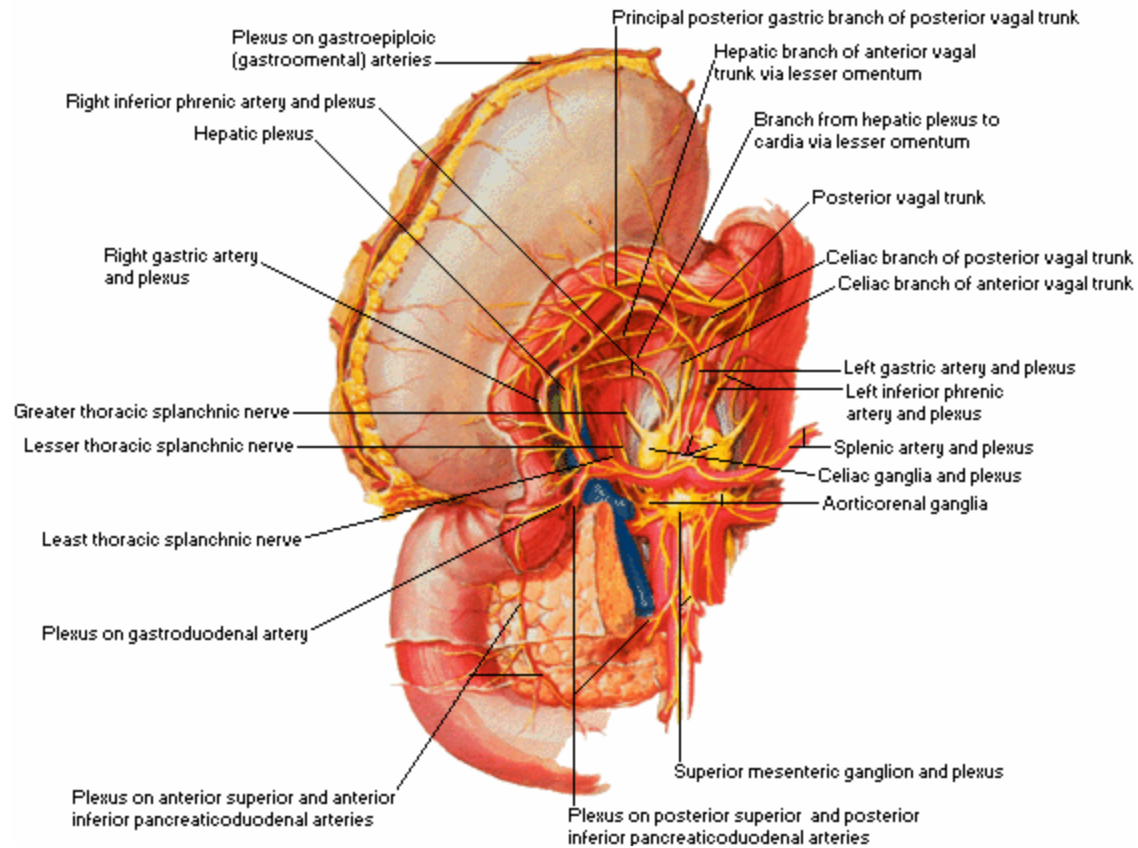
Posterior View



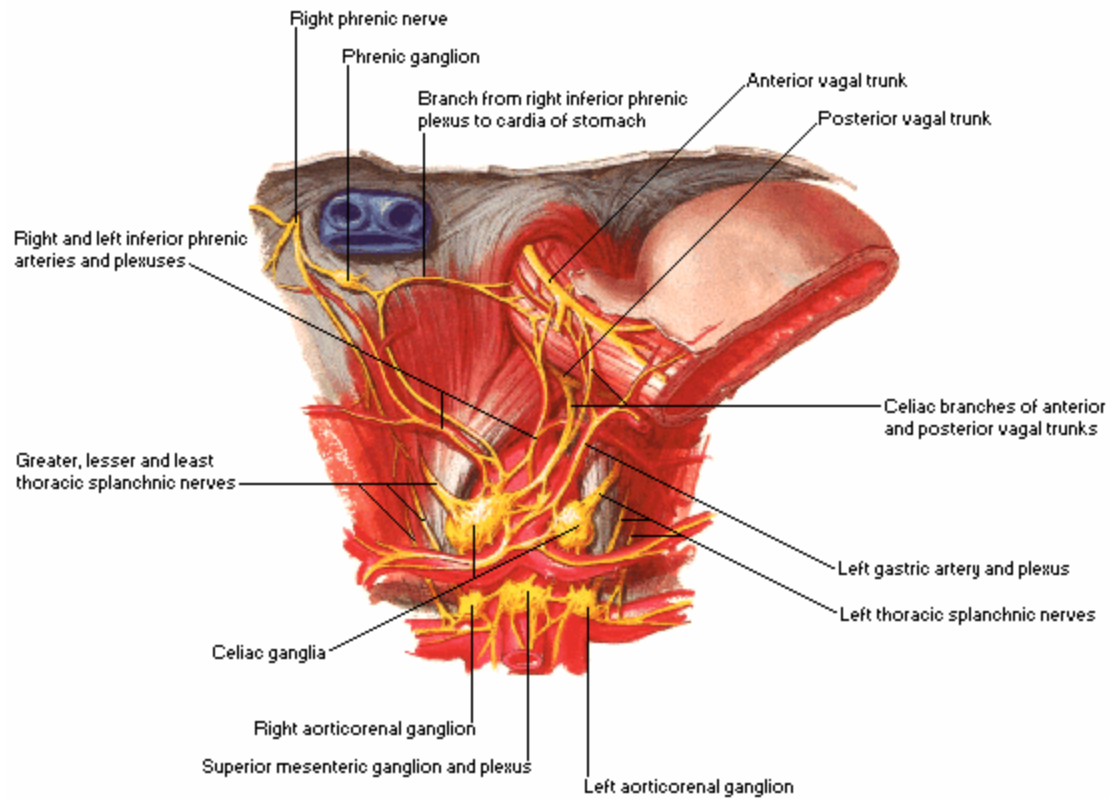




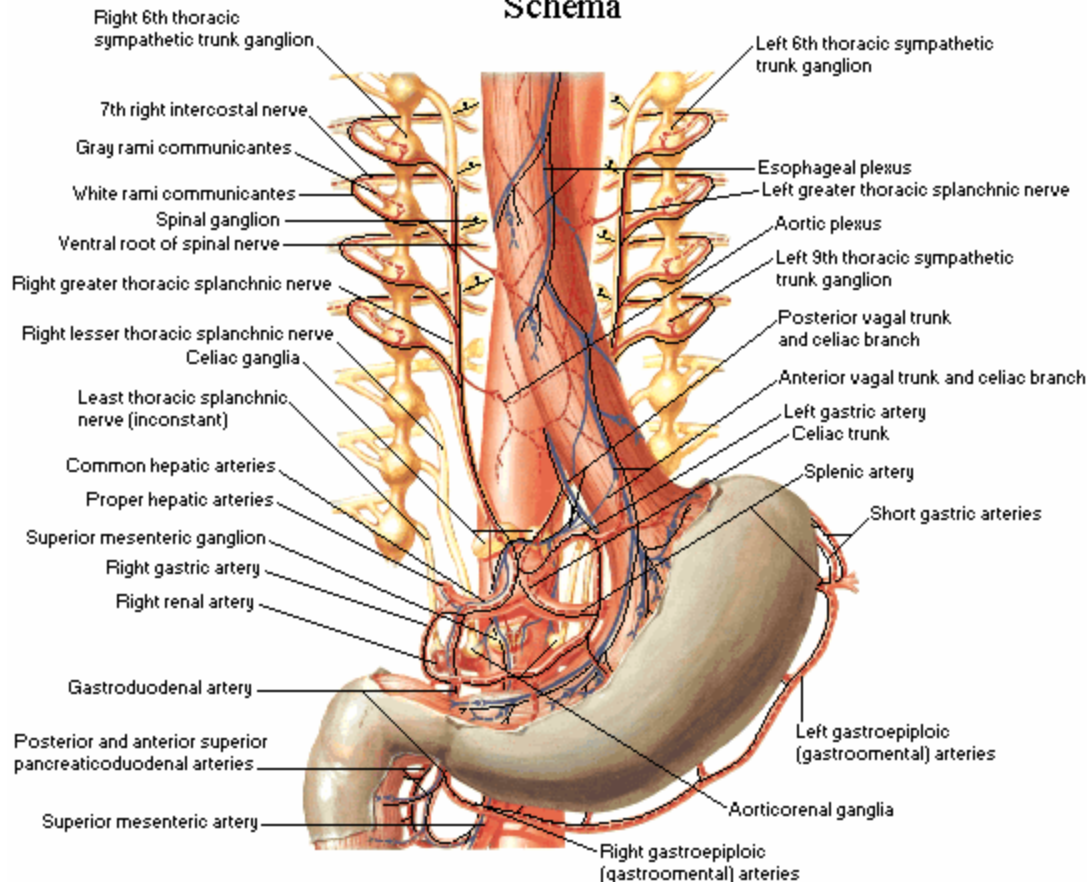
View with Stomach Reflected

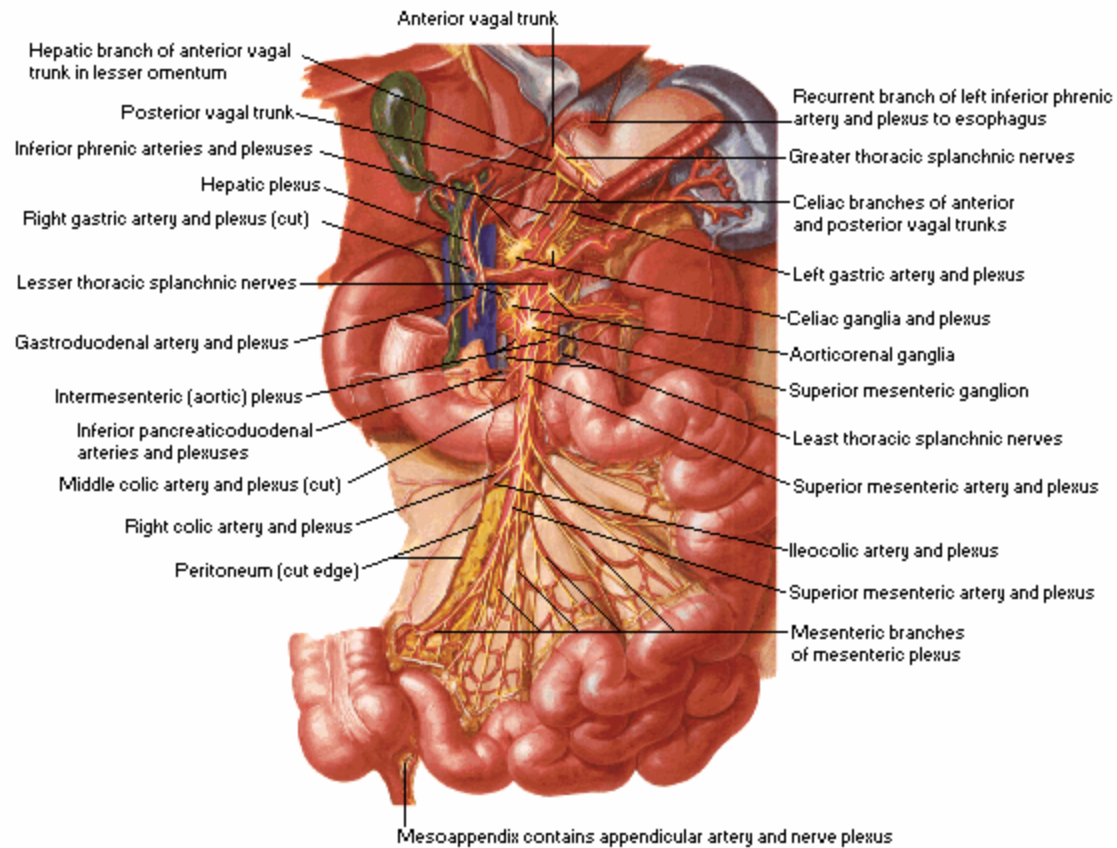


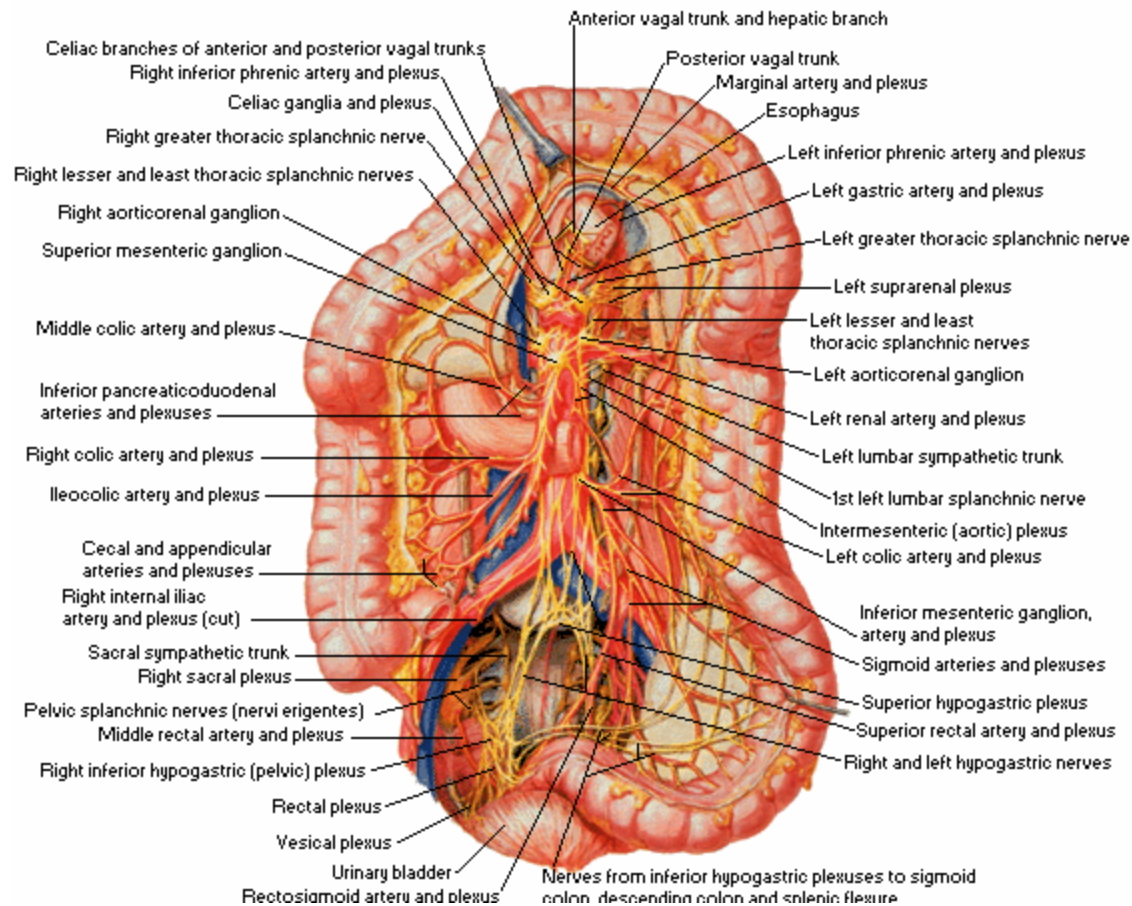
Hiatal Region



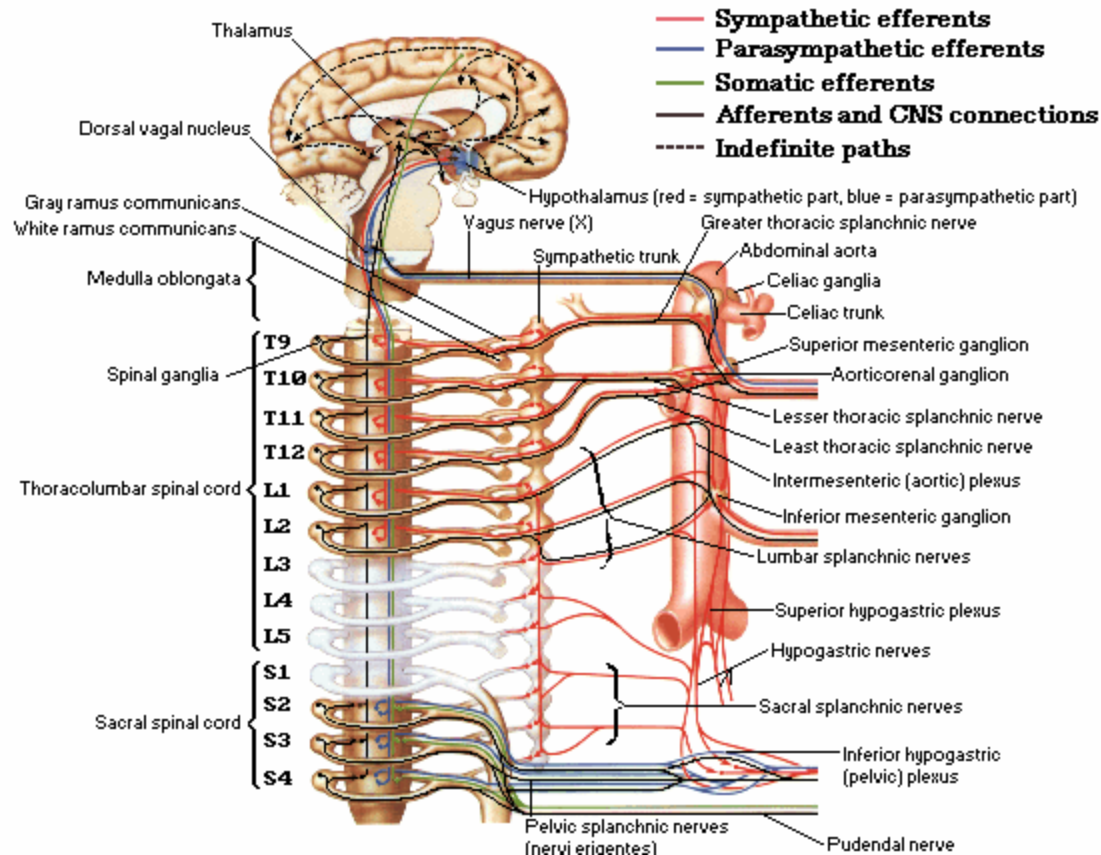
Schema



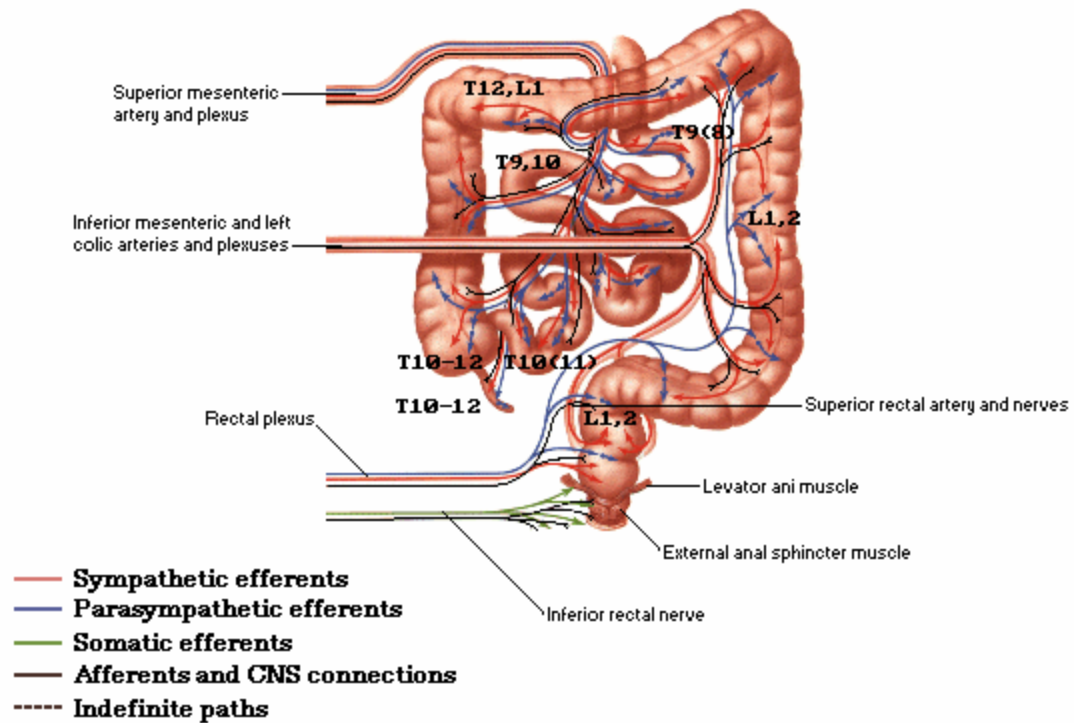




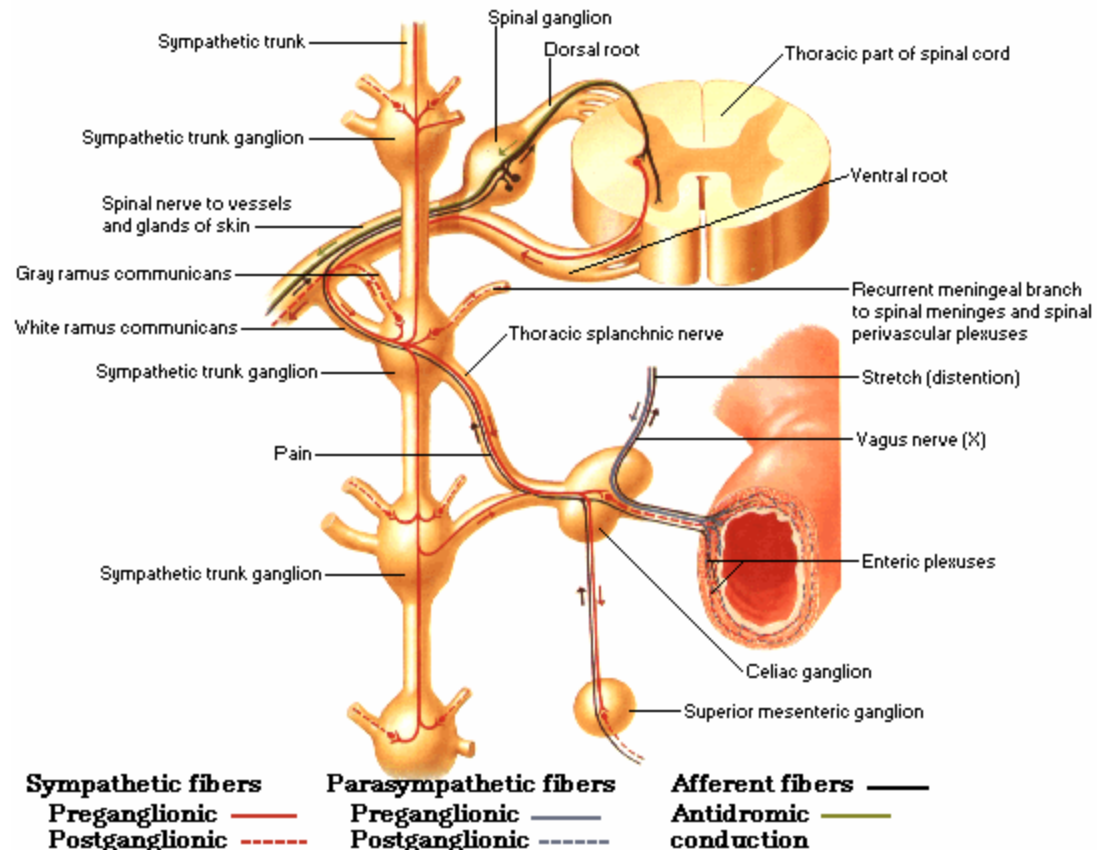
Left Side of Schema



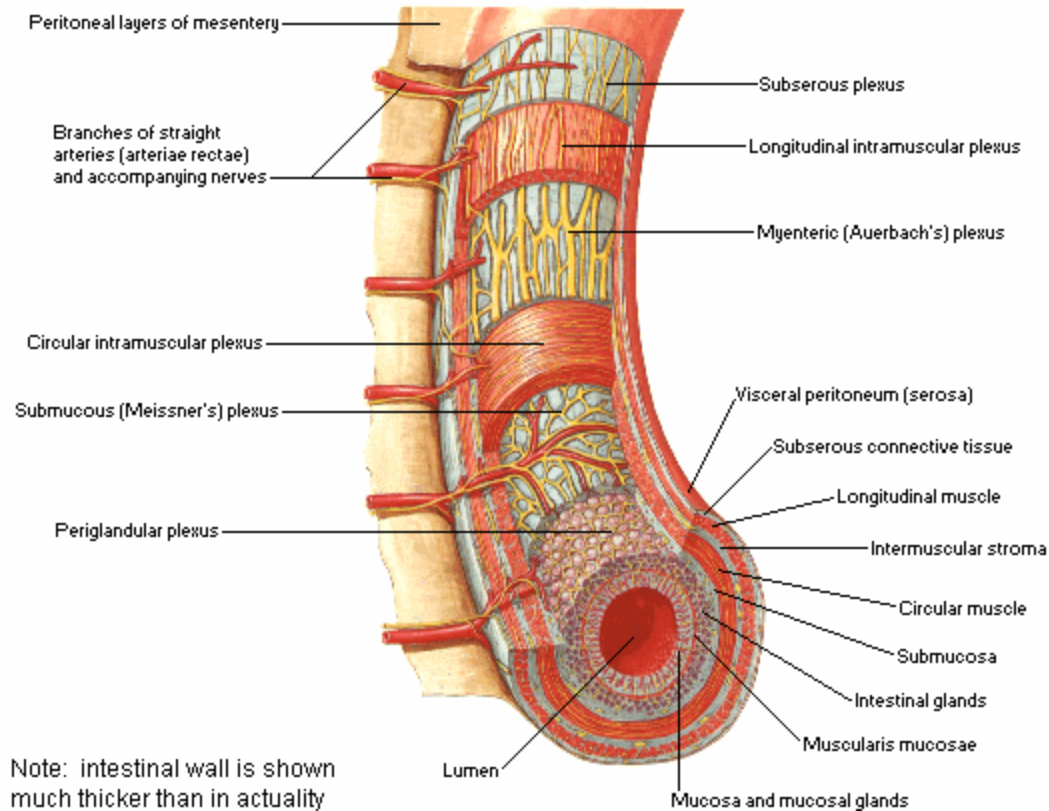
Right Side of Schema

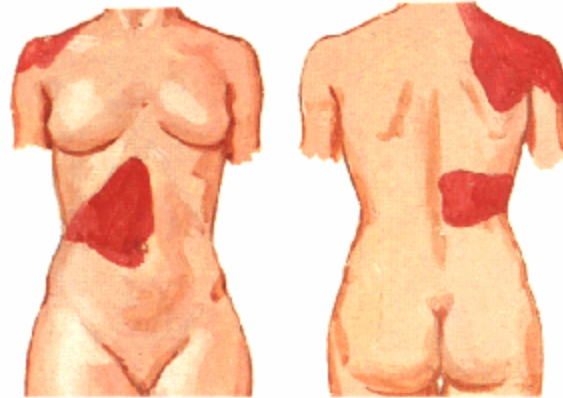


Schema

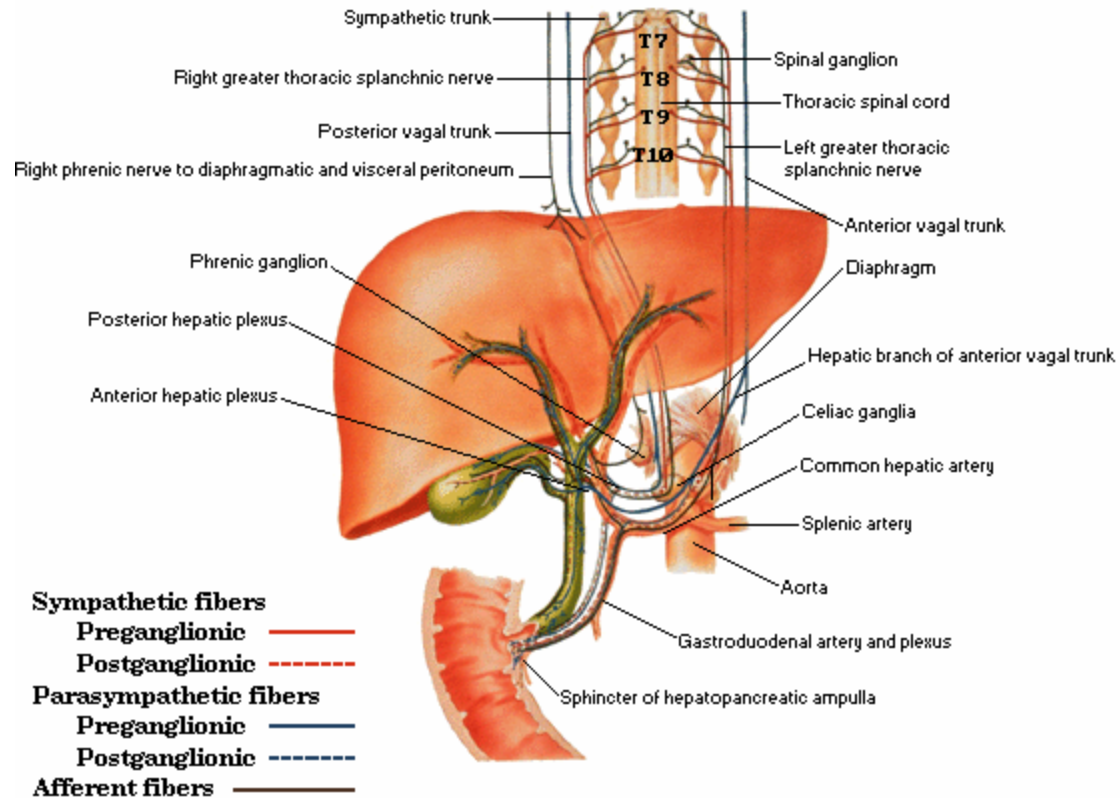


Schema

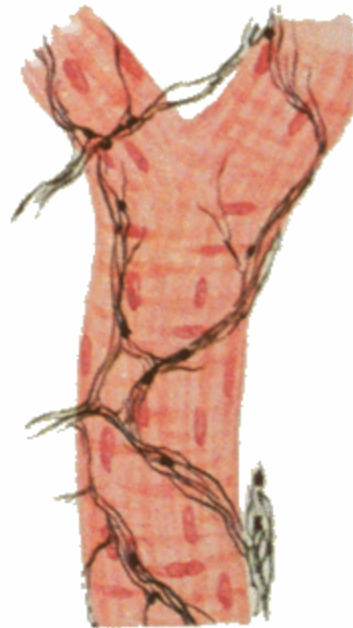




Schema

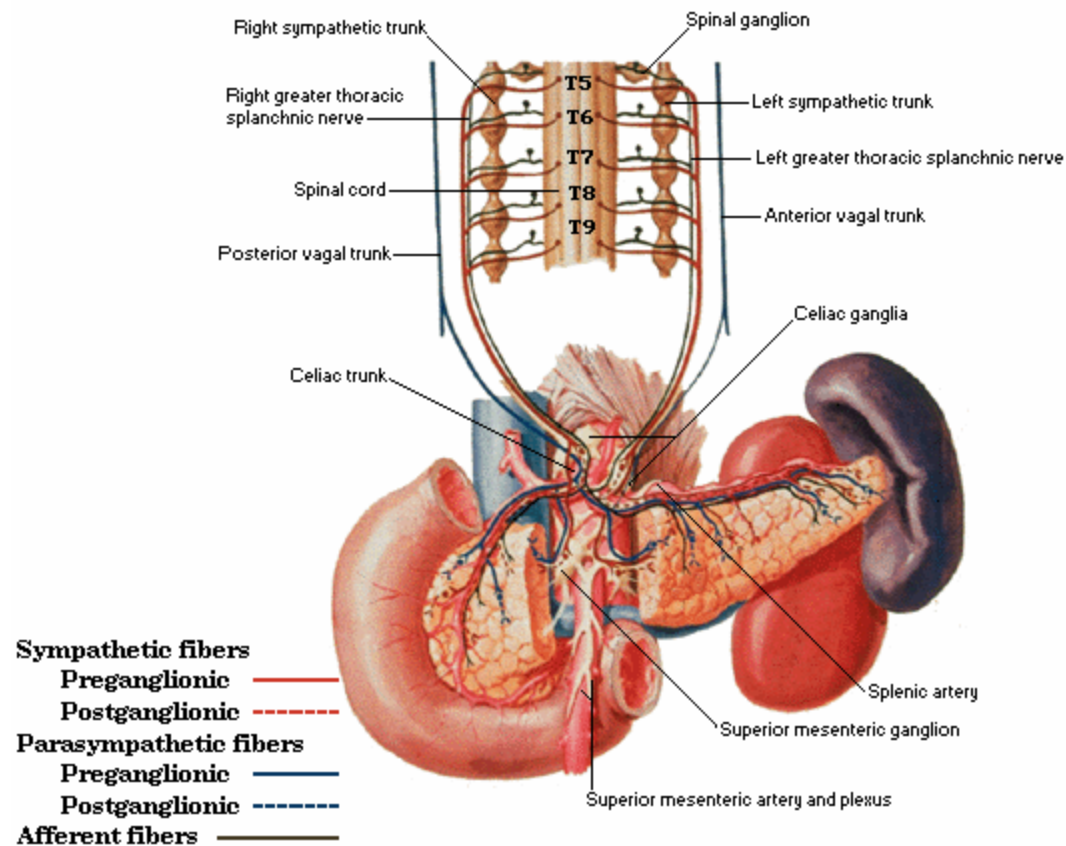


Nerve Fibers around Fine Branch of Hepatic Artery





Schema



Sympathetic fibers

Preganglionic ———

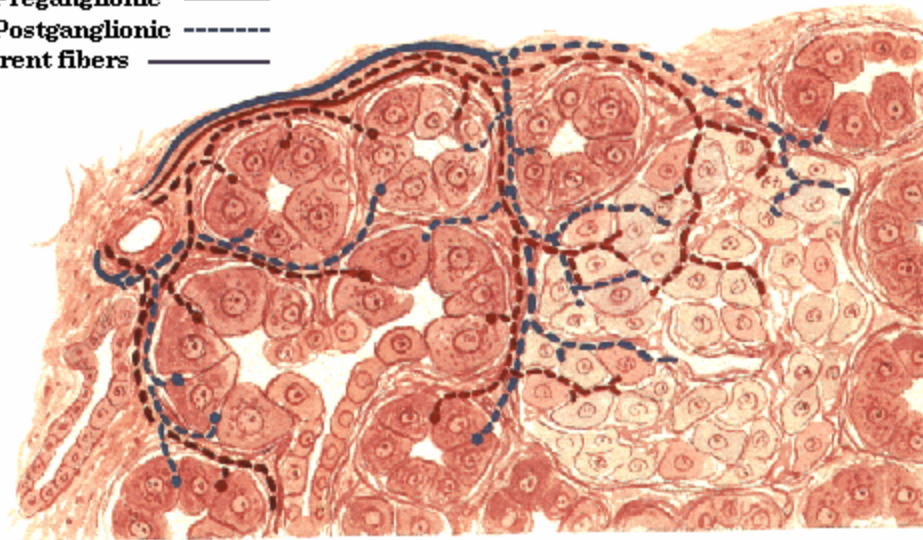
Postganglionic - - - - -

Parasympathetic fibers

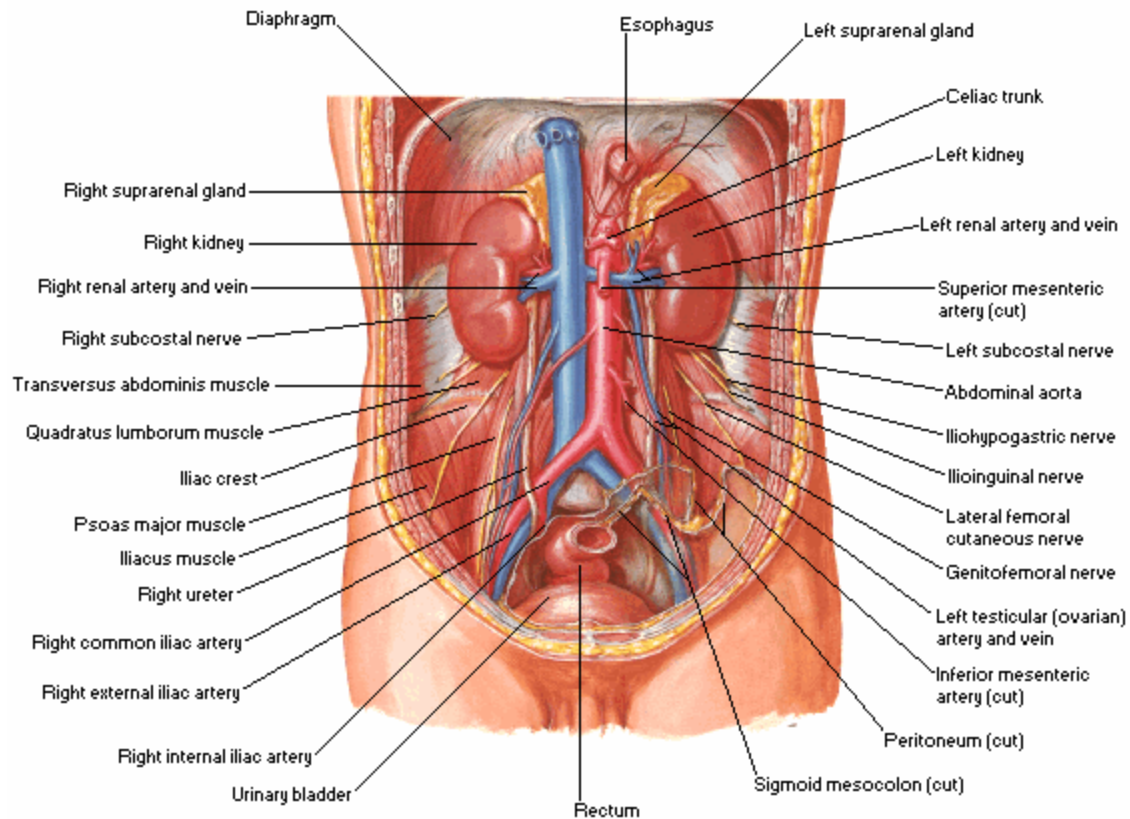
Preganglionic ———

Postganglionic - - - - -

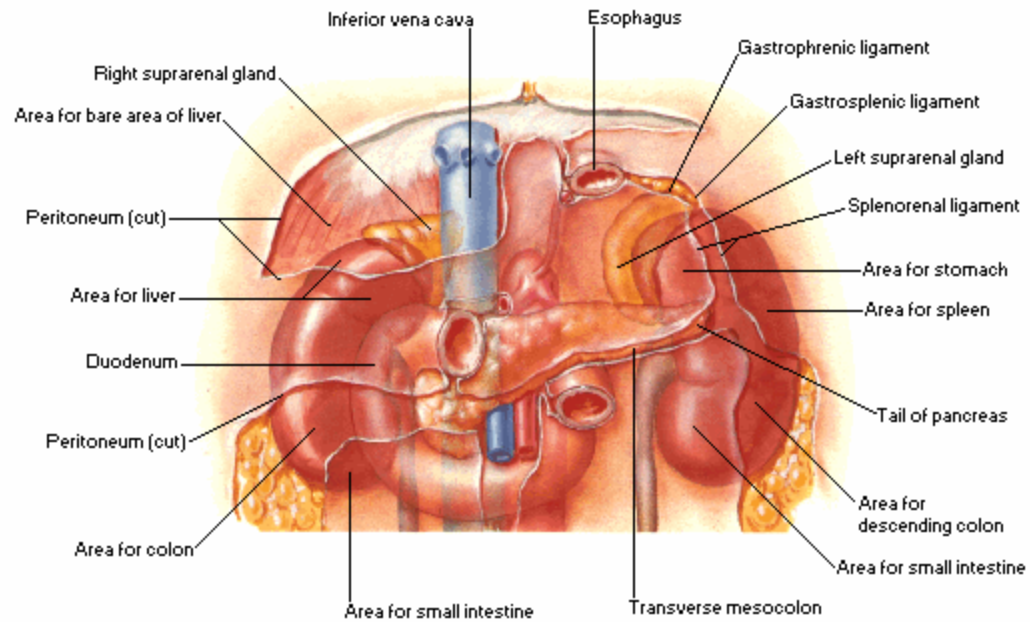
Afferent fibers ———



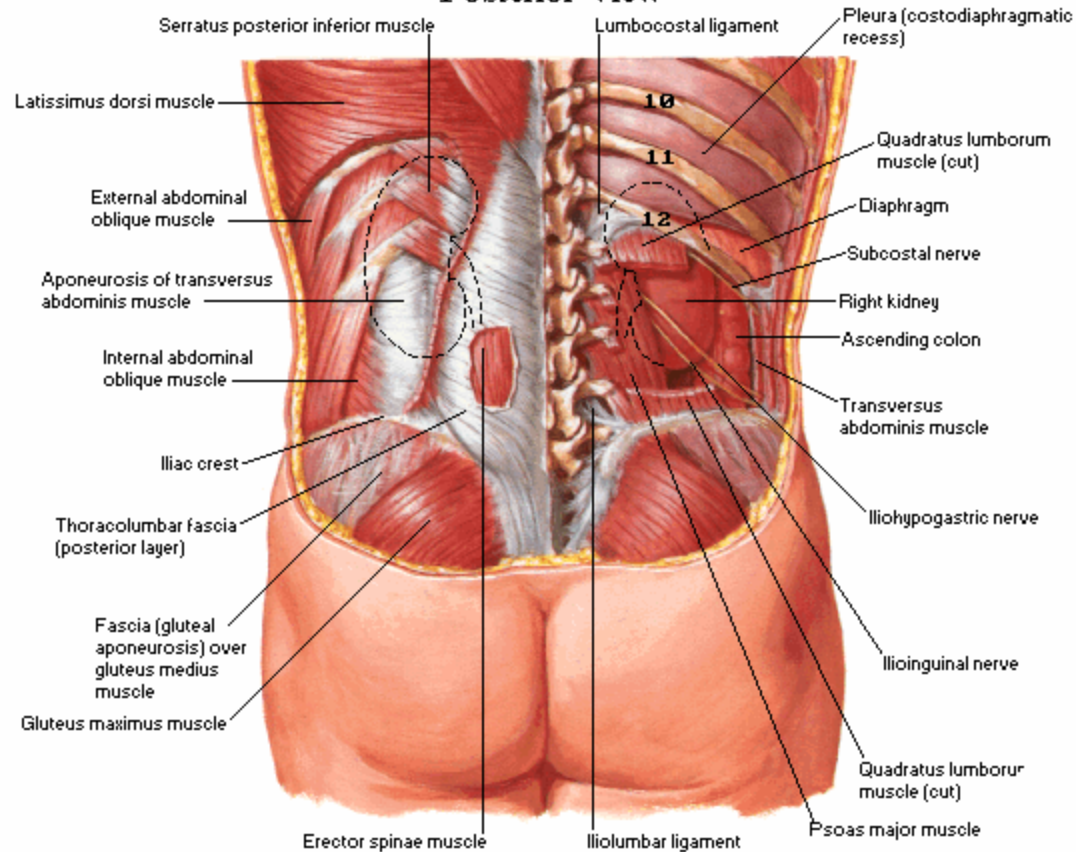
Anterior View



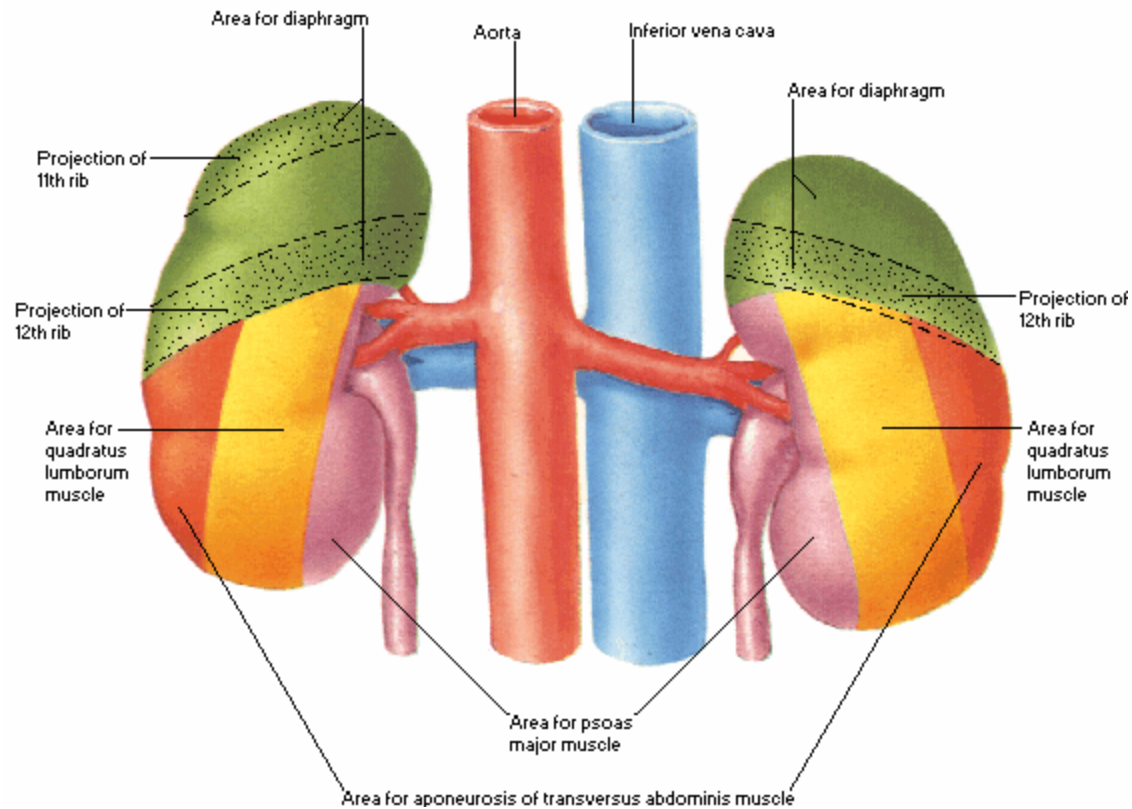
Anterior Relations of Kidneys

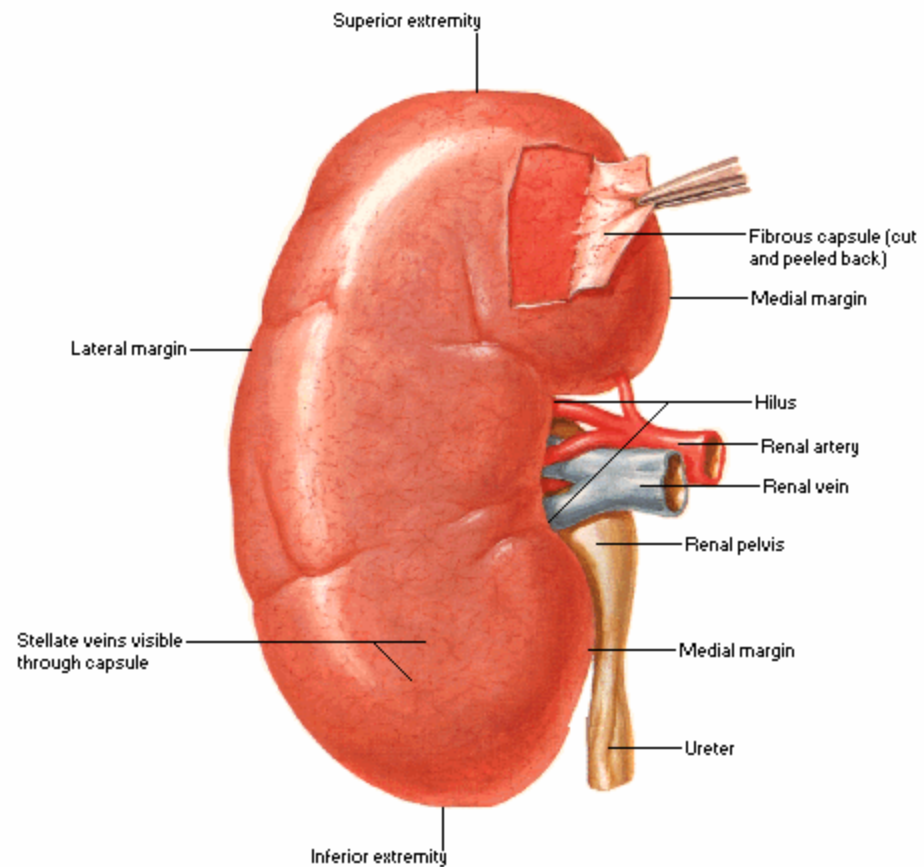


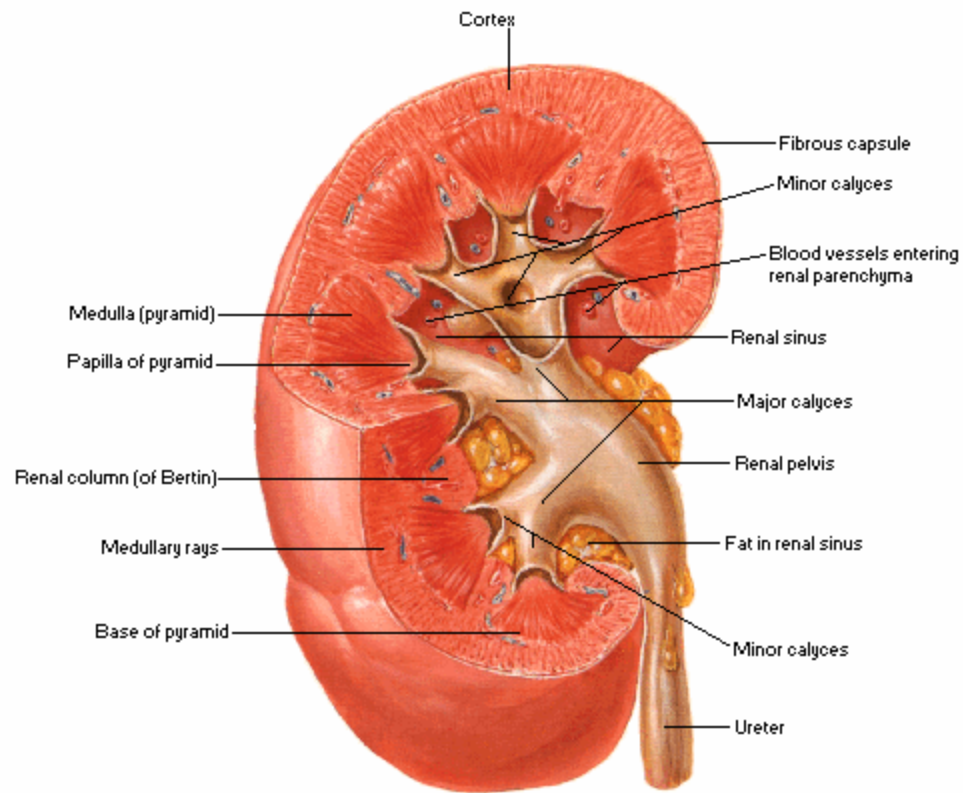
Posterior View

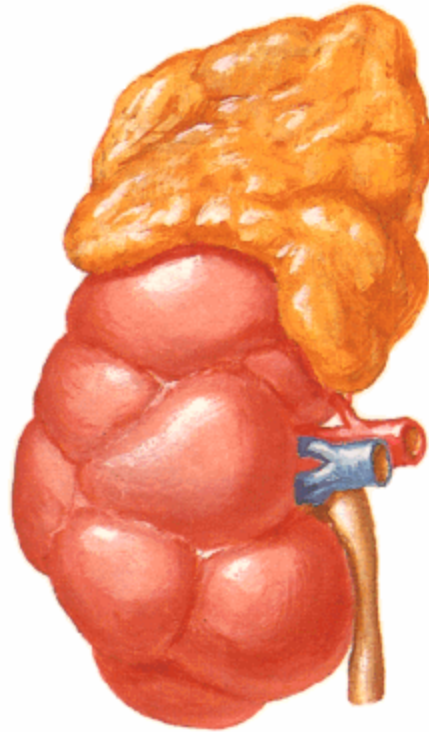


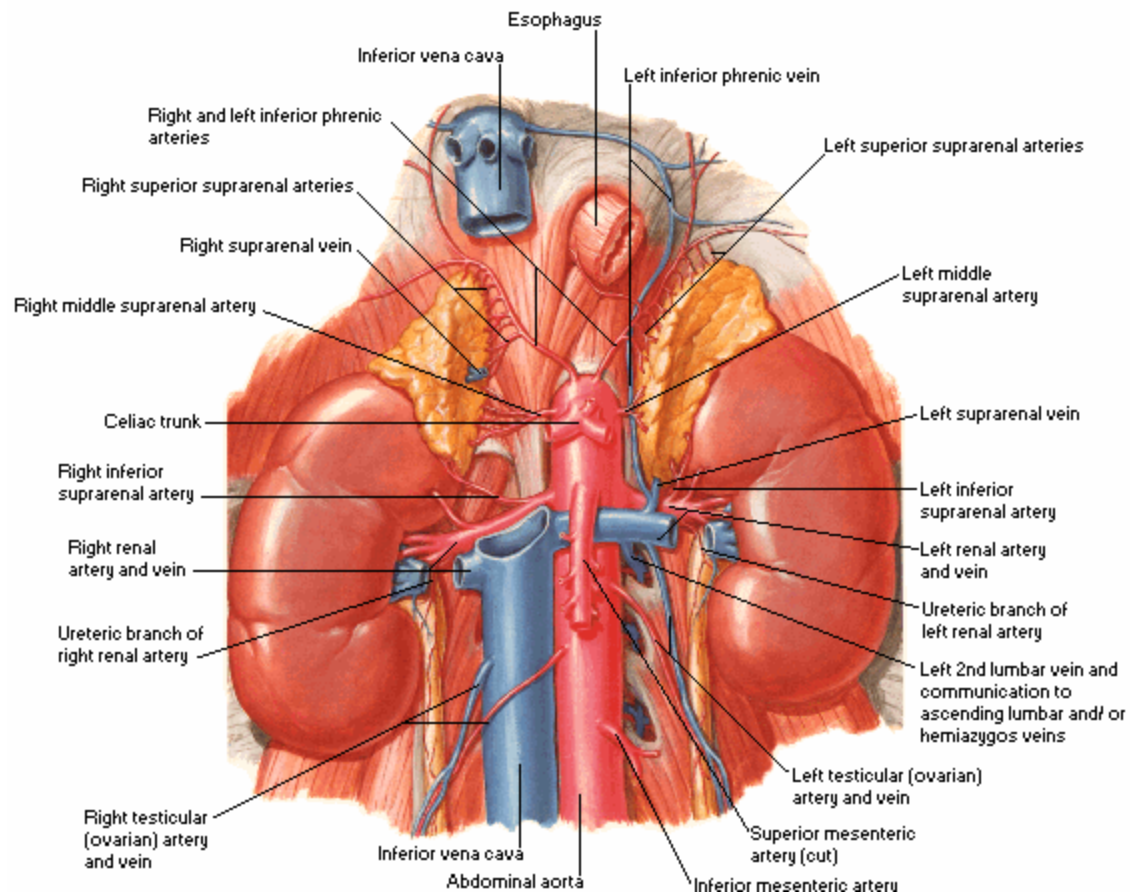
Posterior Relations of Kidneys



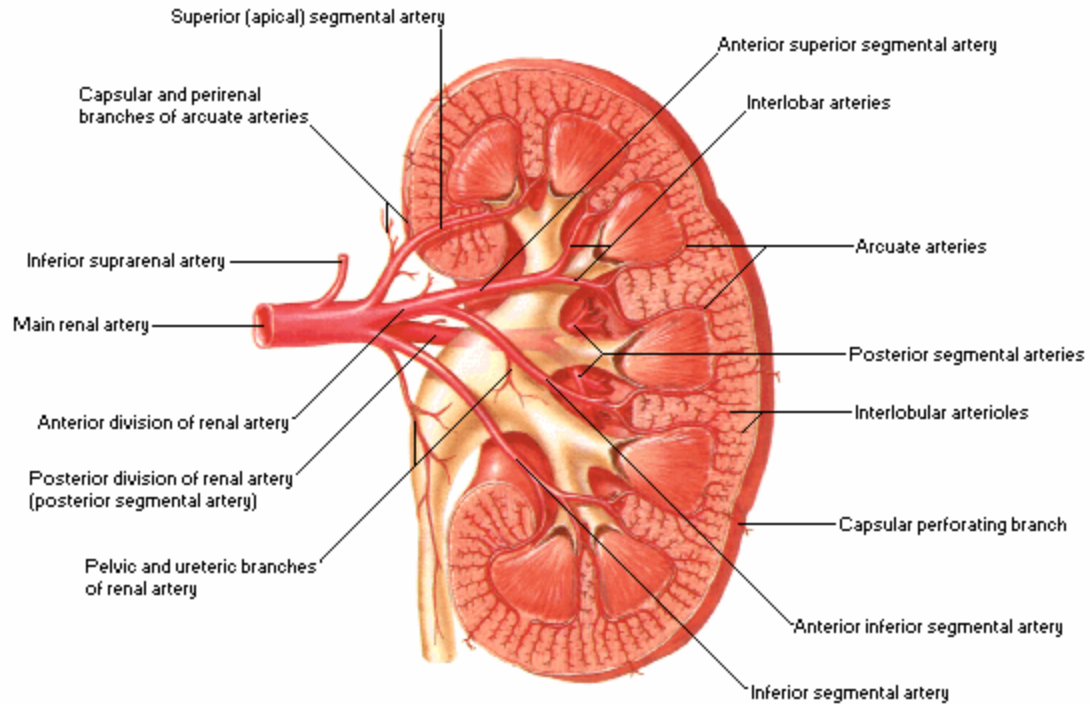


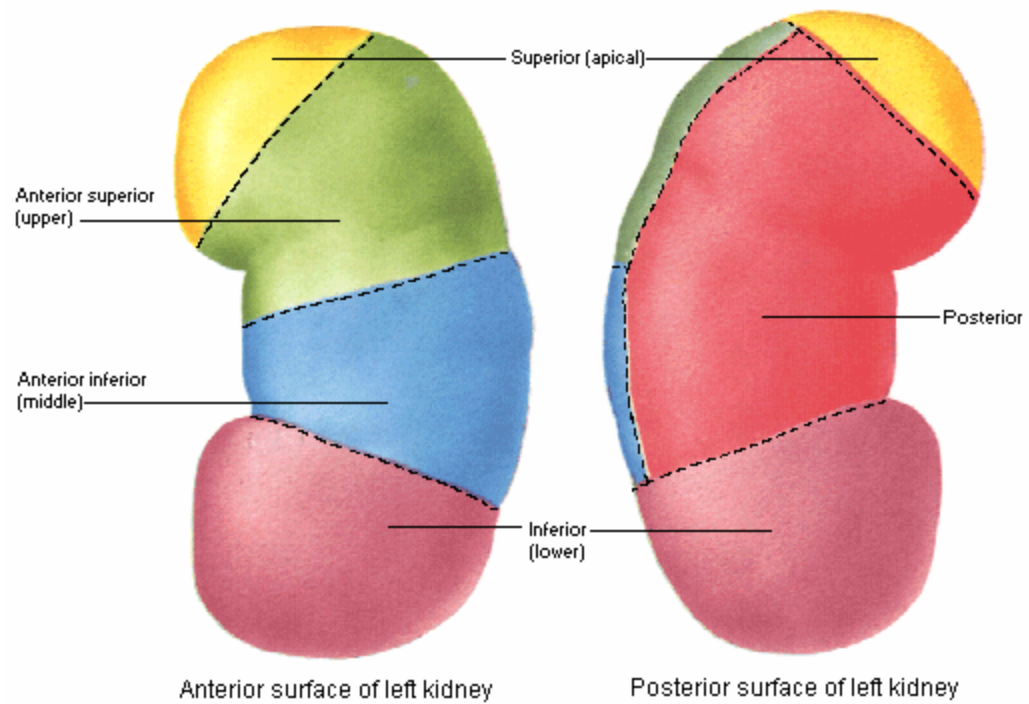


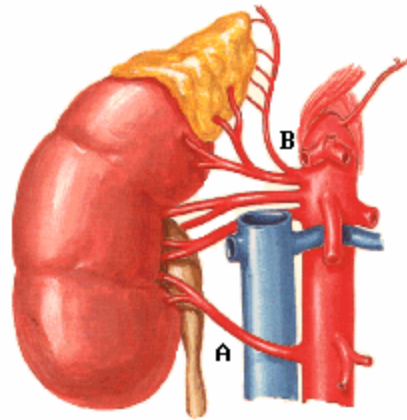




Frontal Section of Left Kidney - Anterior View

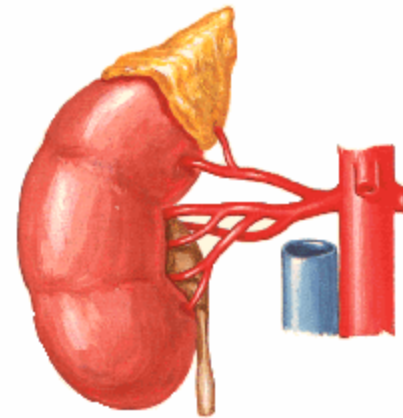




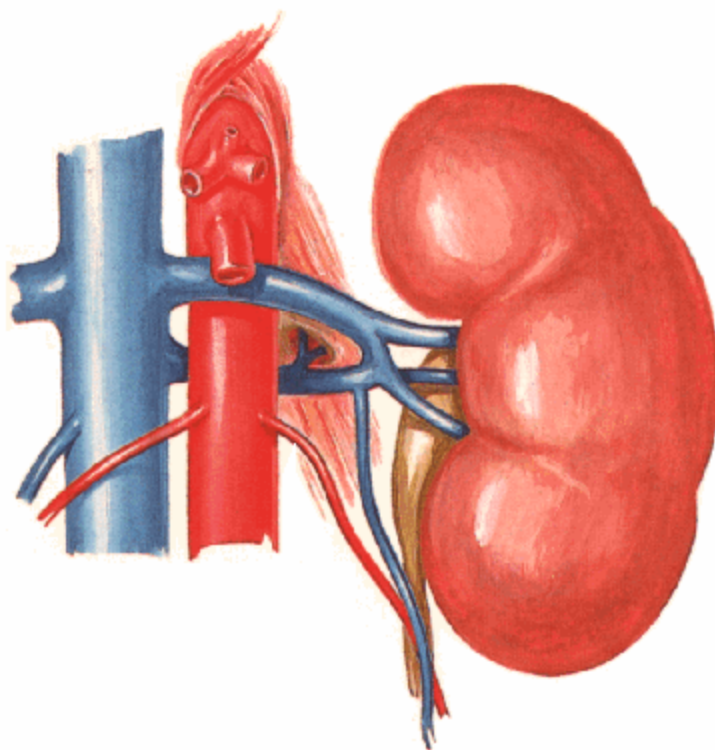


A) Low accessory right renal artery may pass in front of inferior vena cava instead of behind it

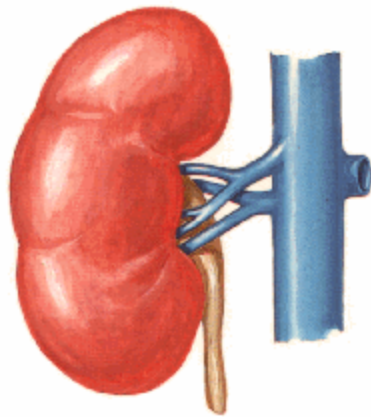
B) Inferior phrenic artery with suprarenal arteries may arise from renal artery



Proximal subdivision of renal artery

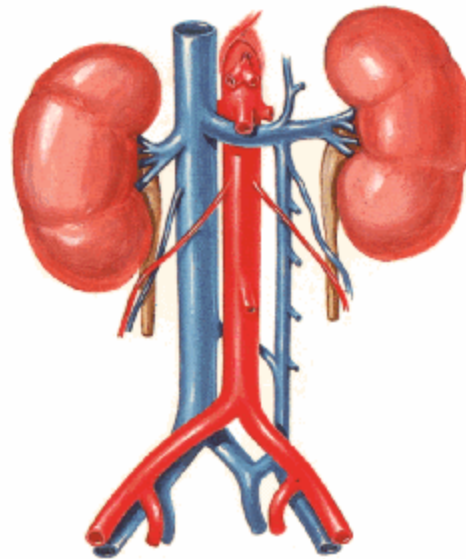


Double renal vein may form ring around aorta

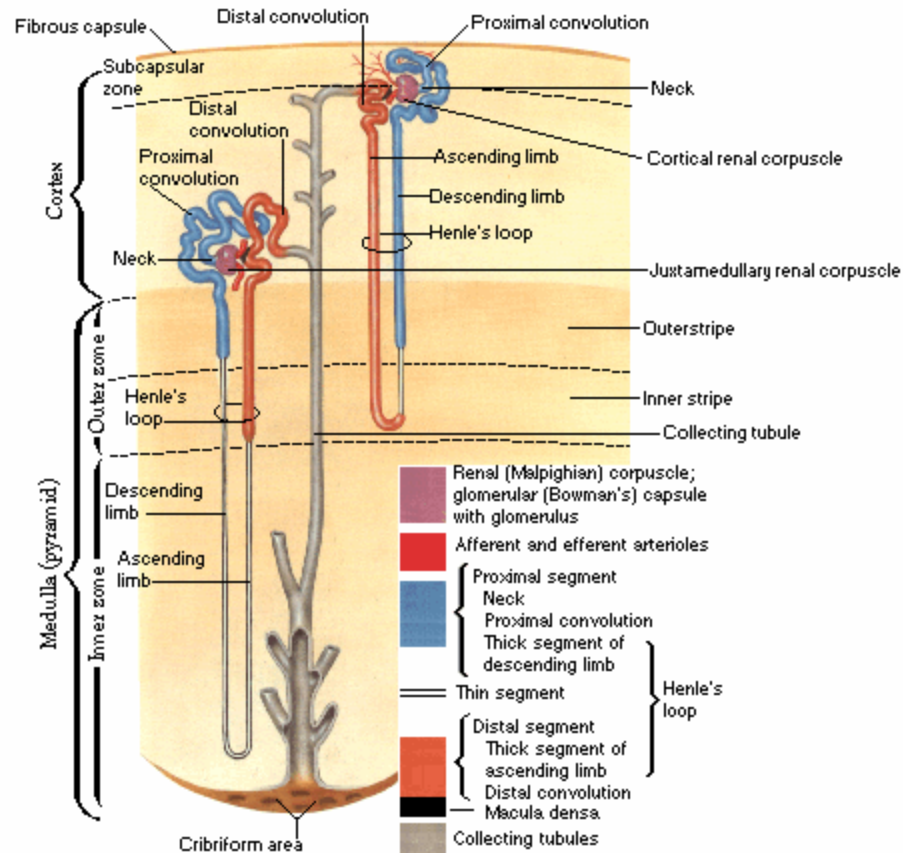


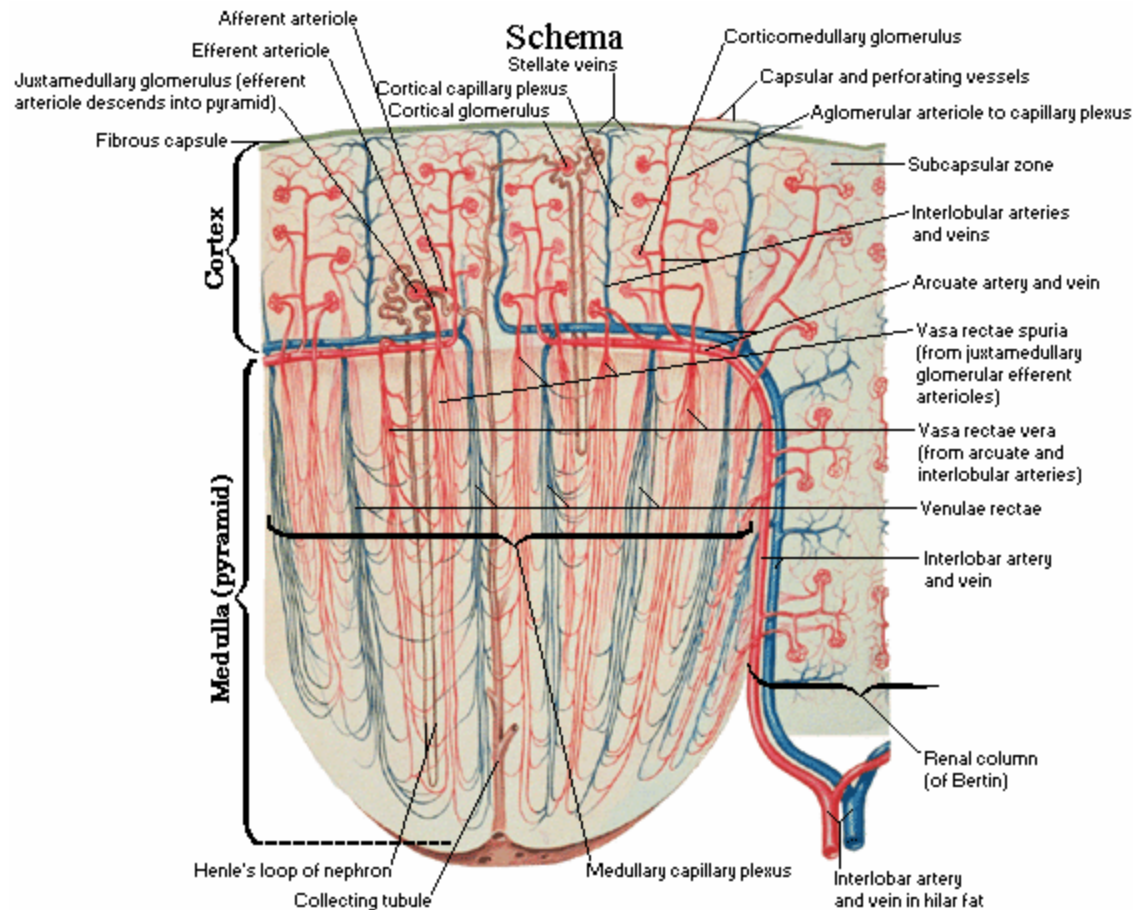
Multiple renal veins

Persistent left inferior vena cava
may join left renal vein

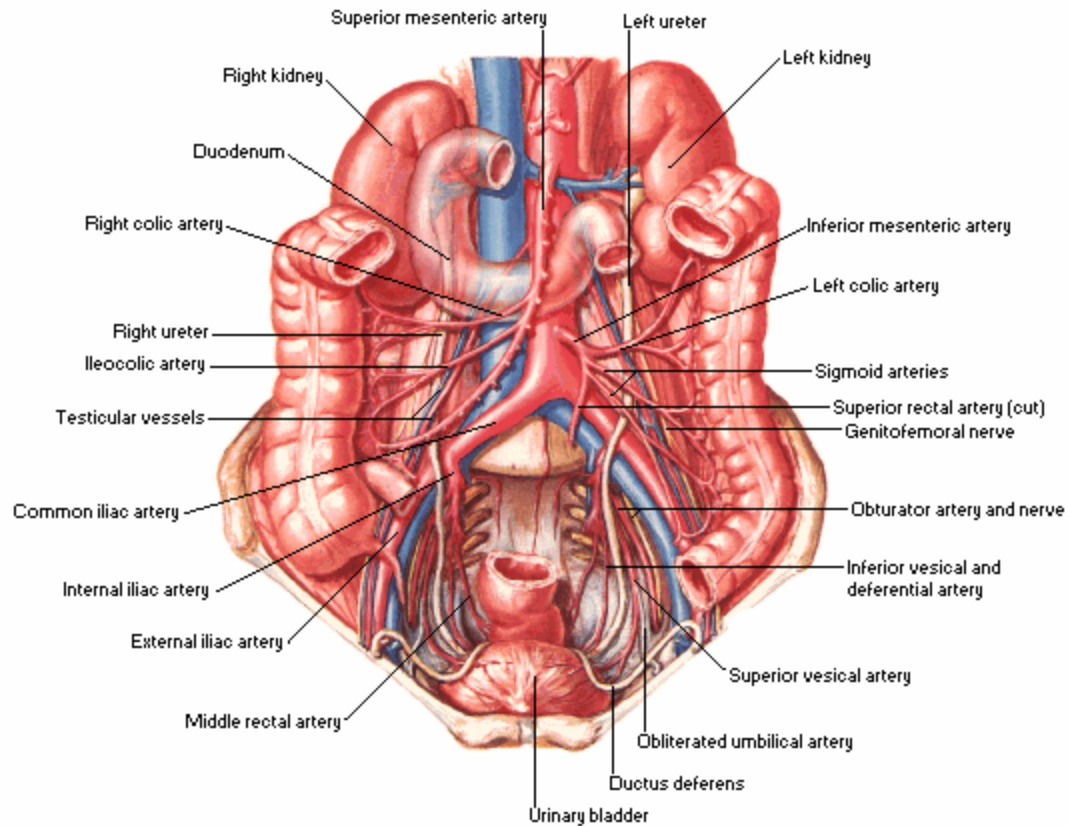


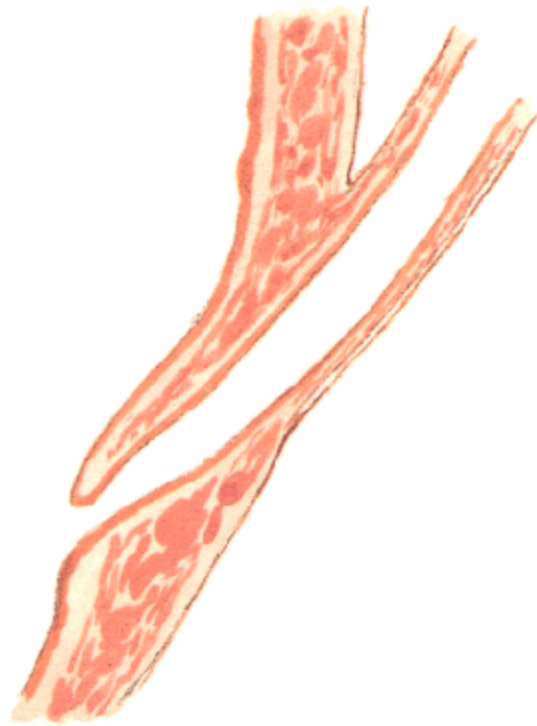
Schema



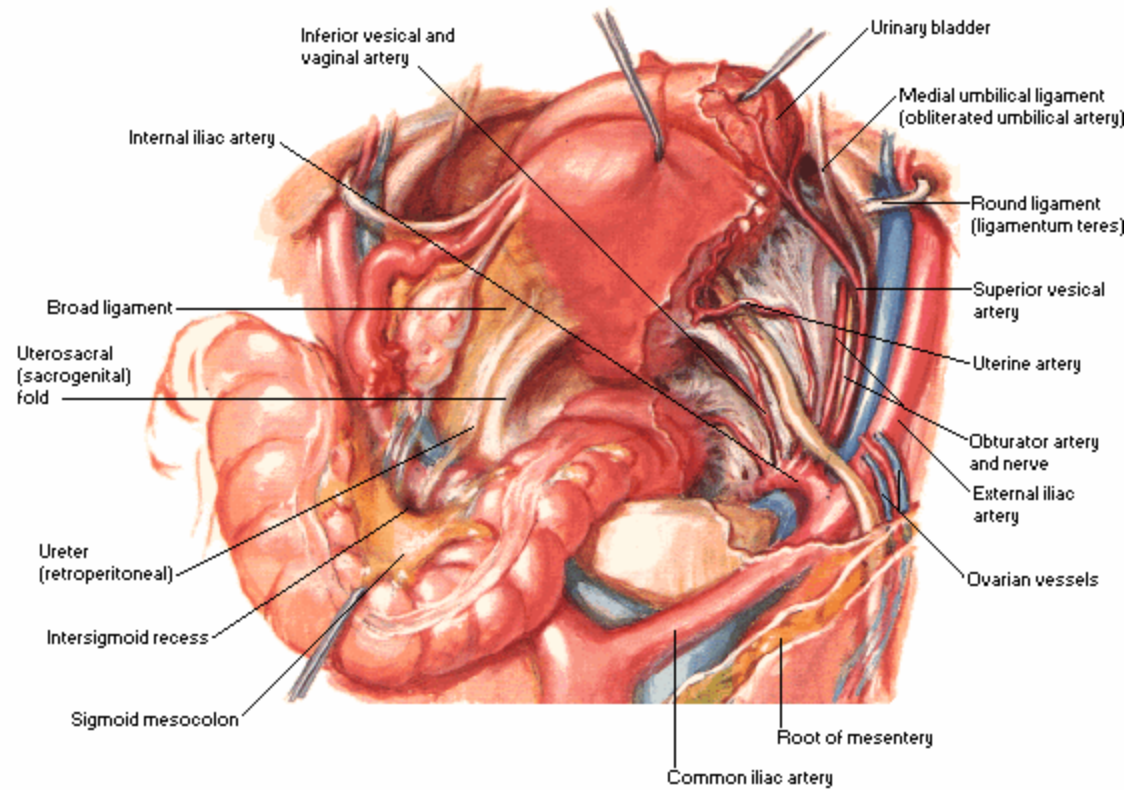


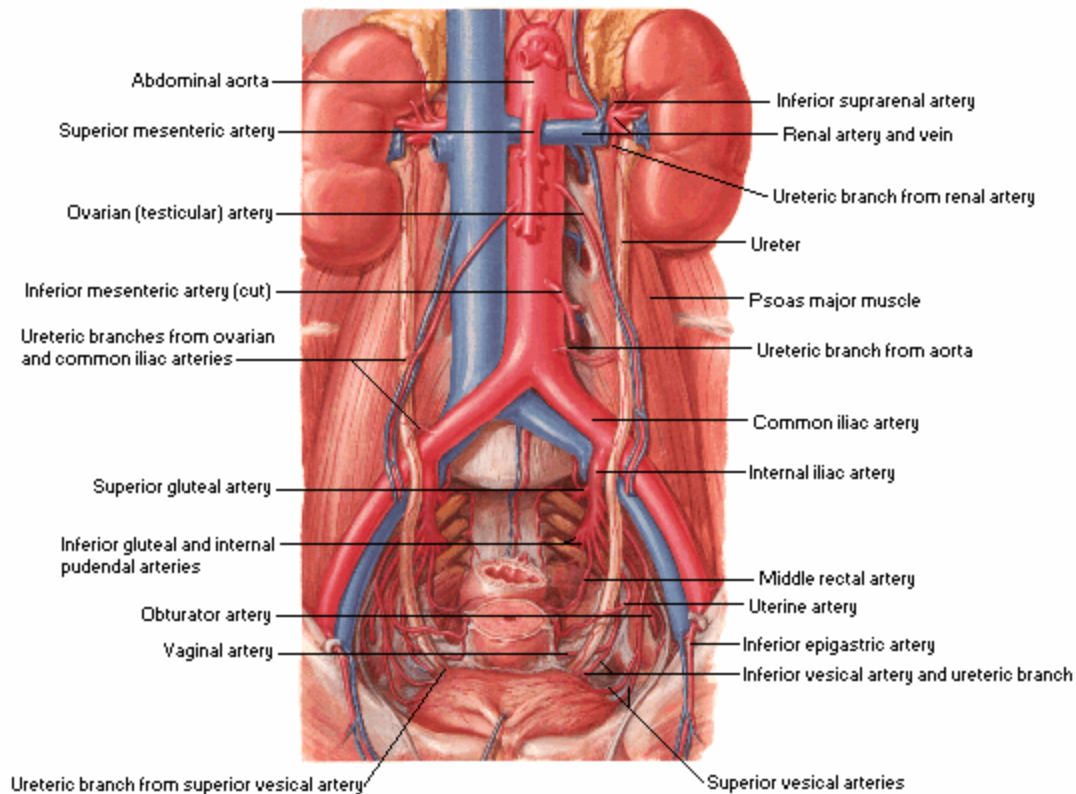
Anterior View

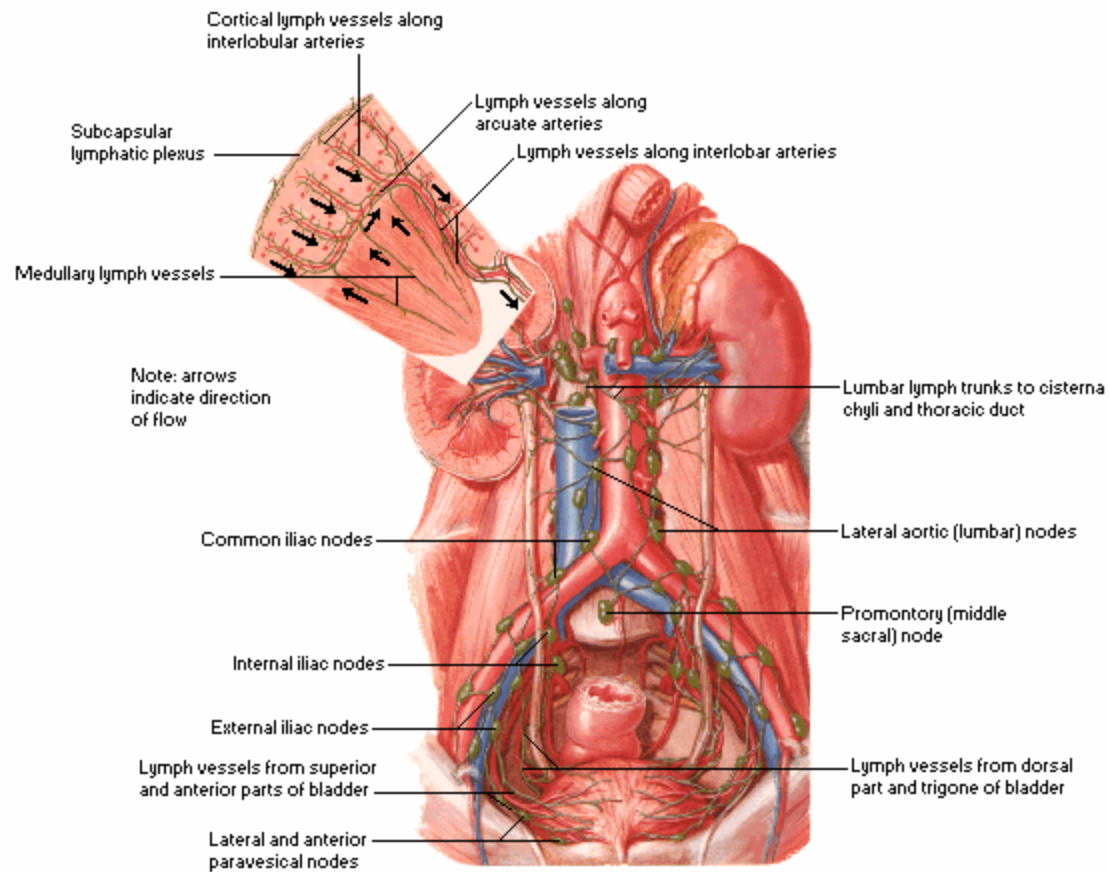


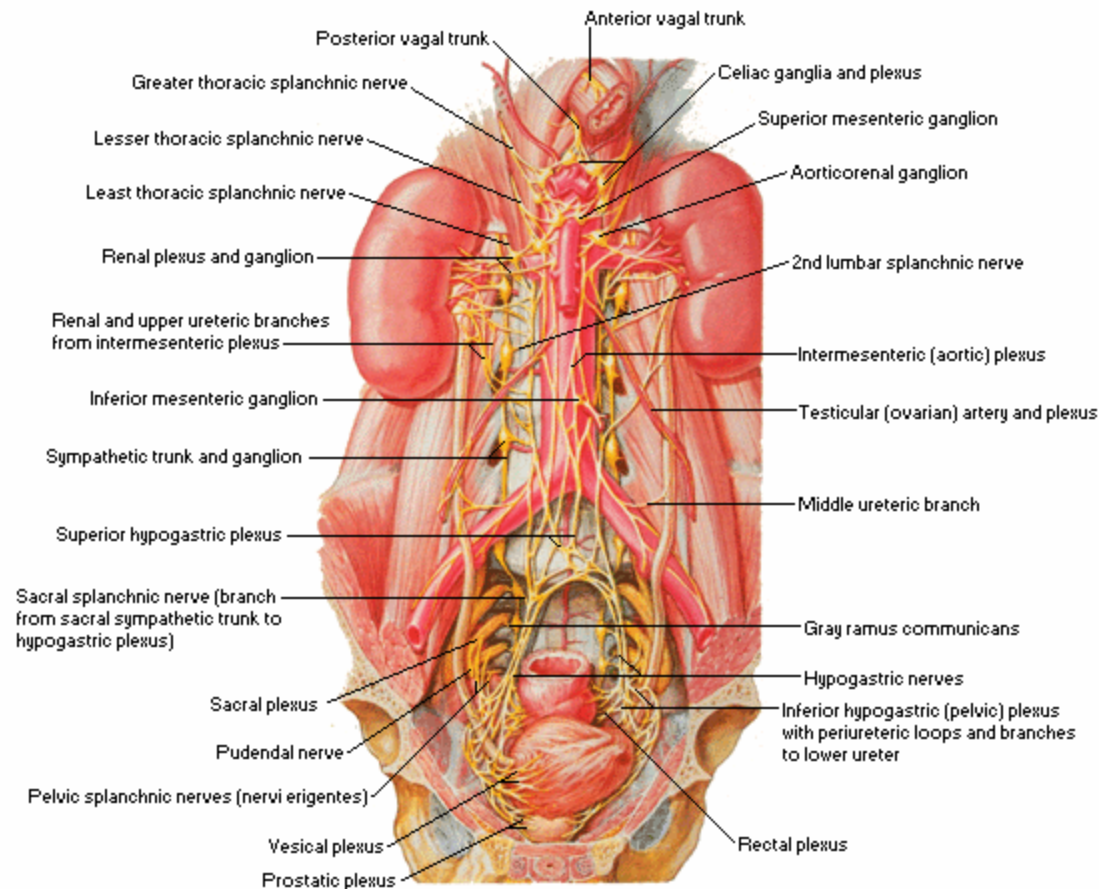


Superior View

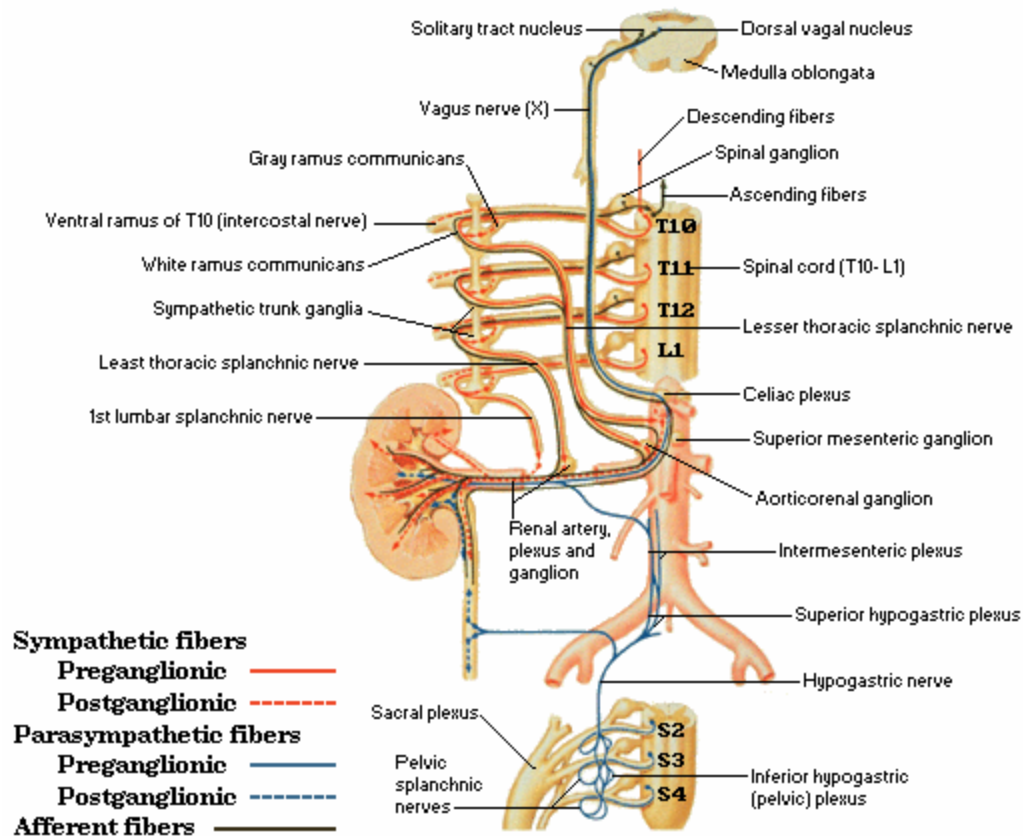




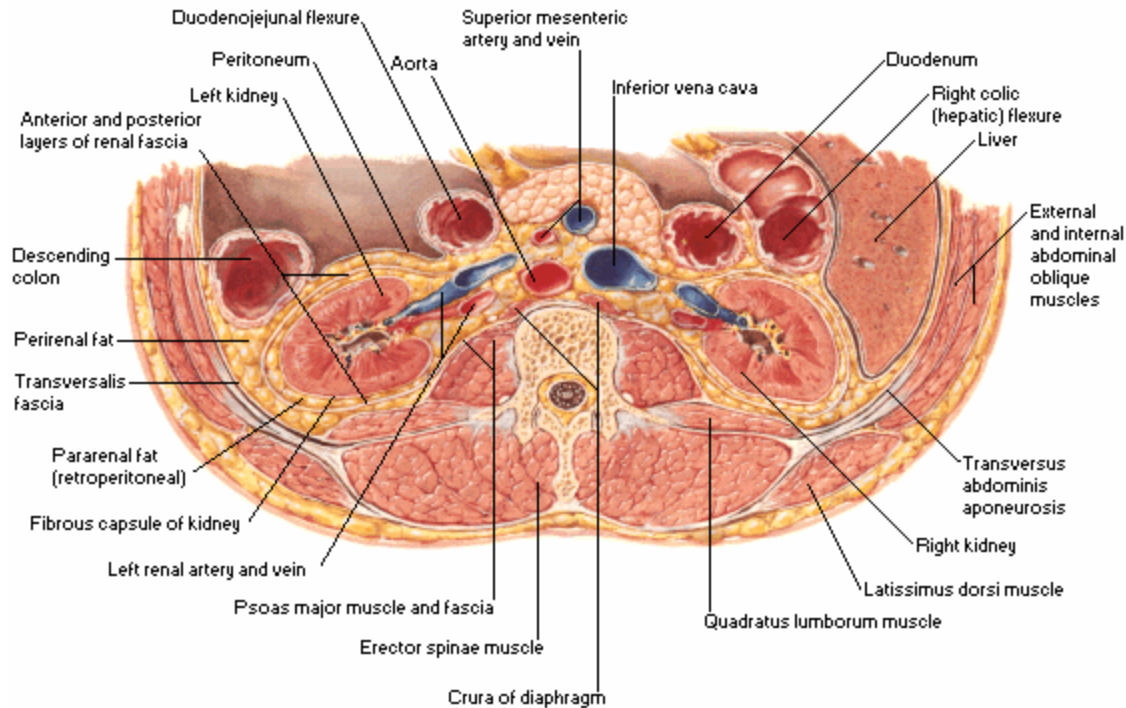




Schema

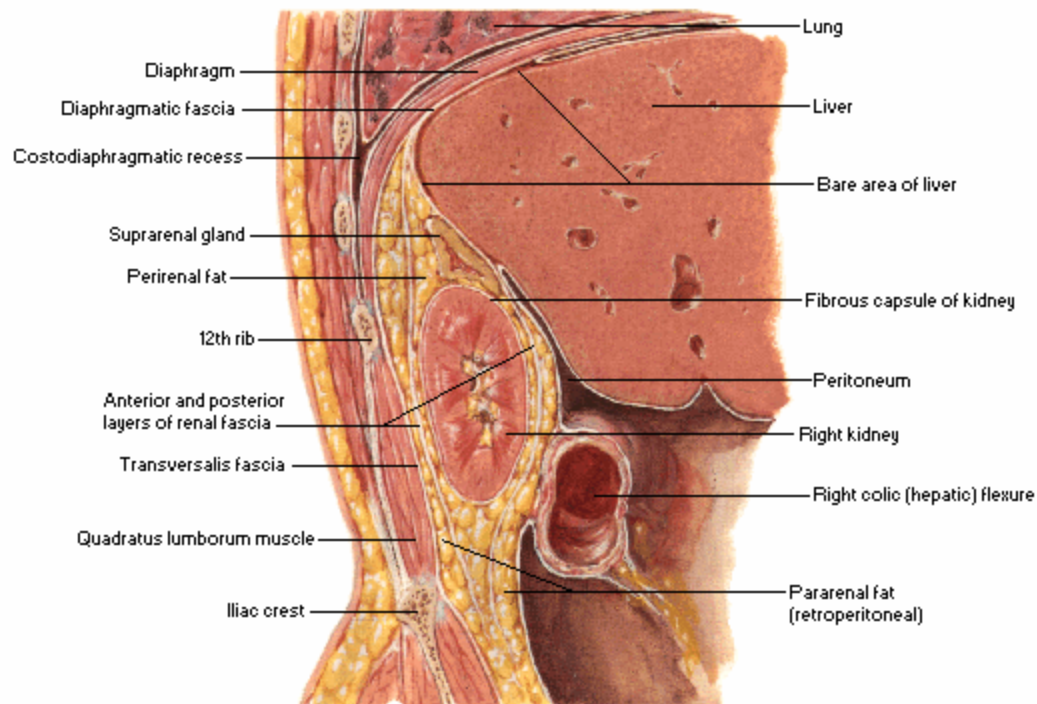


Transverse Section through 2nd Lumbar Vertebra

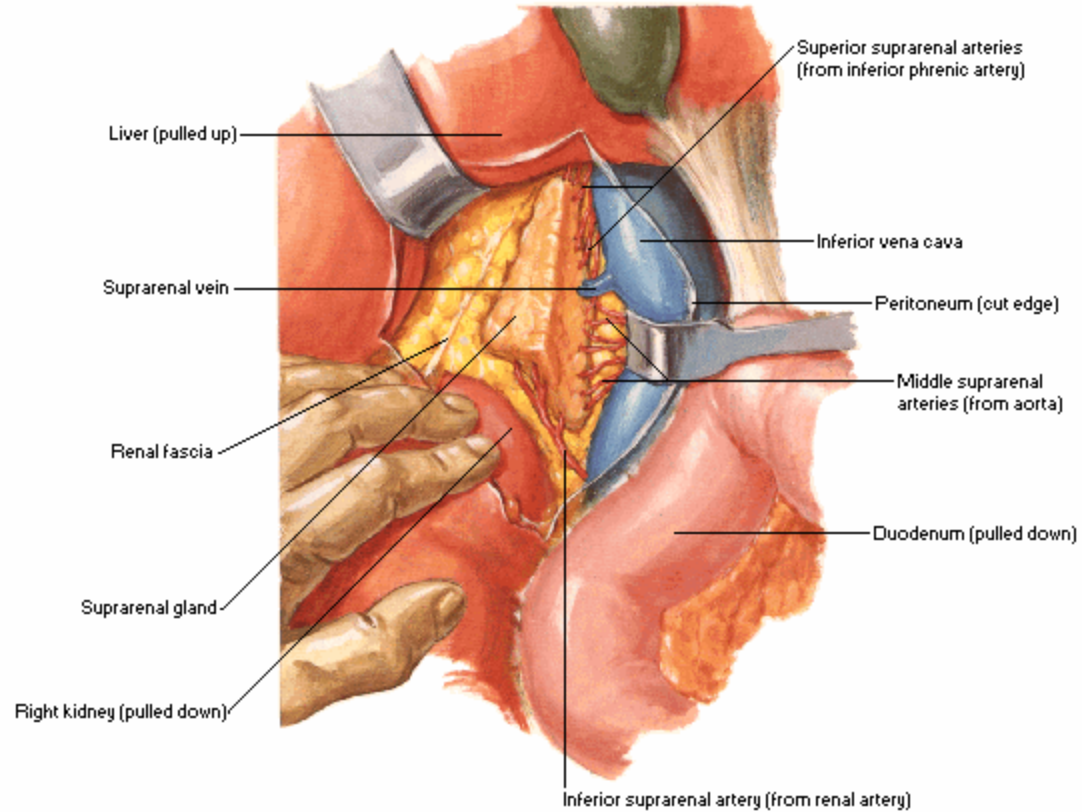


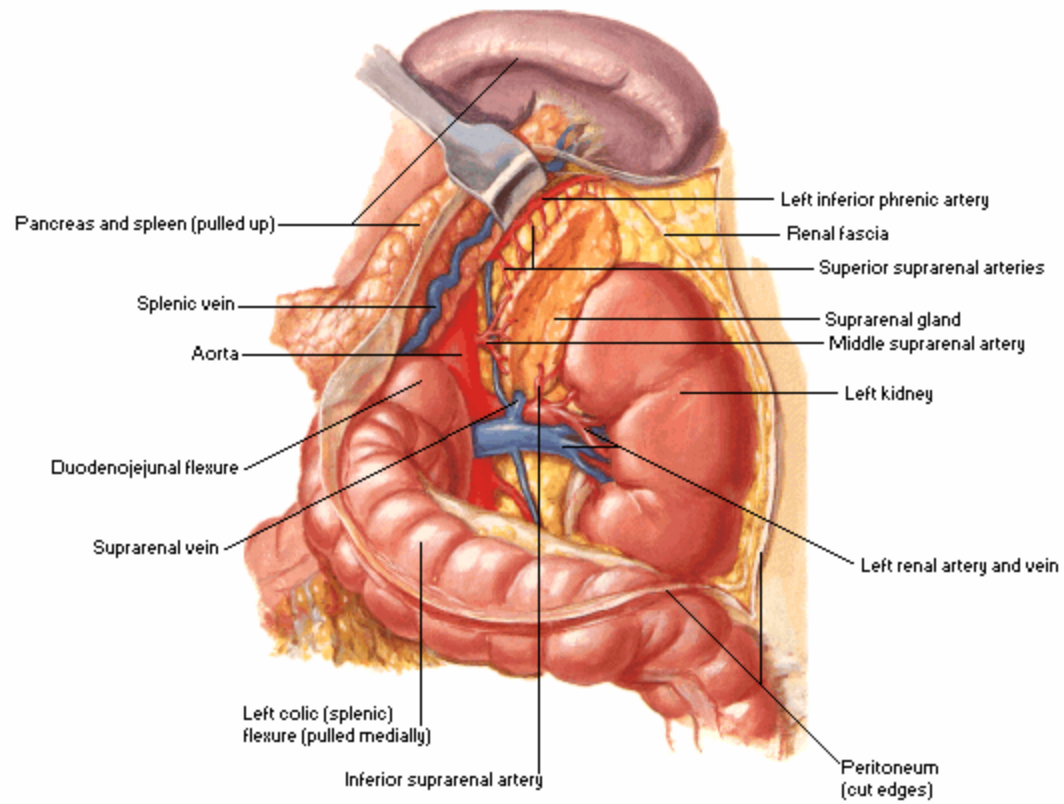
Demonstrates horizontal disposition of fascia

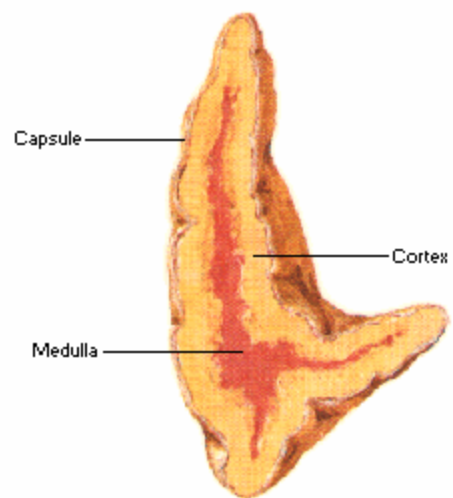
Sagittal Section through Right Kidney



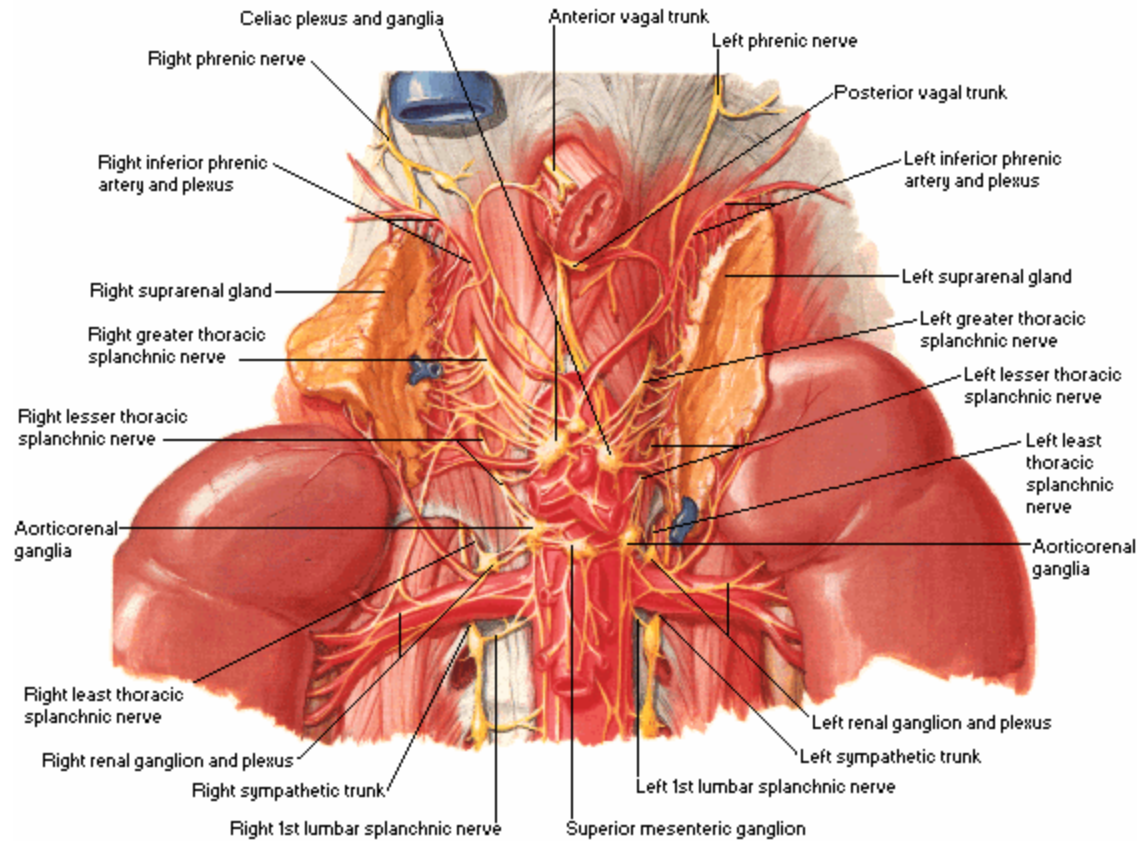
Demonstrates vertical disposition of renal fascia



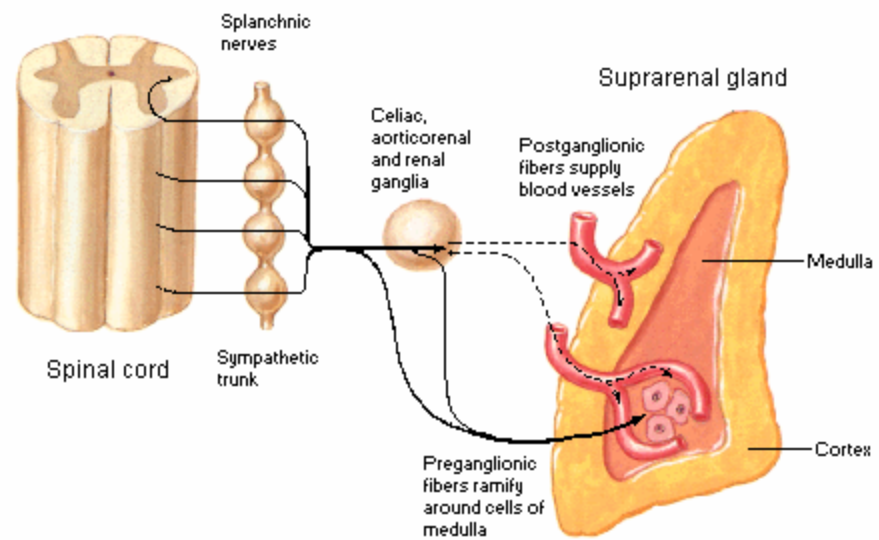


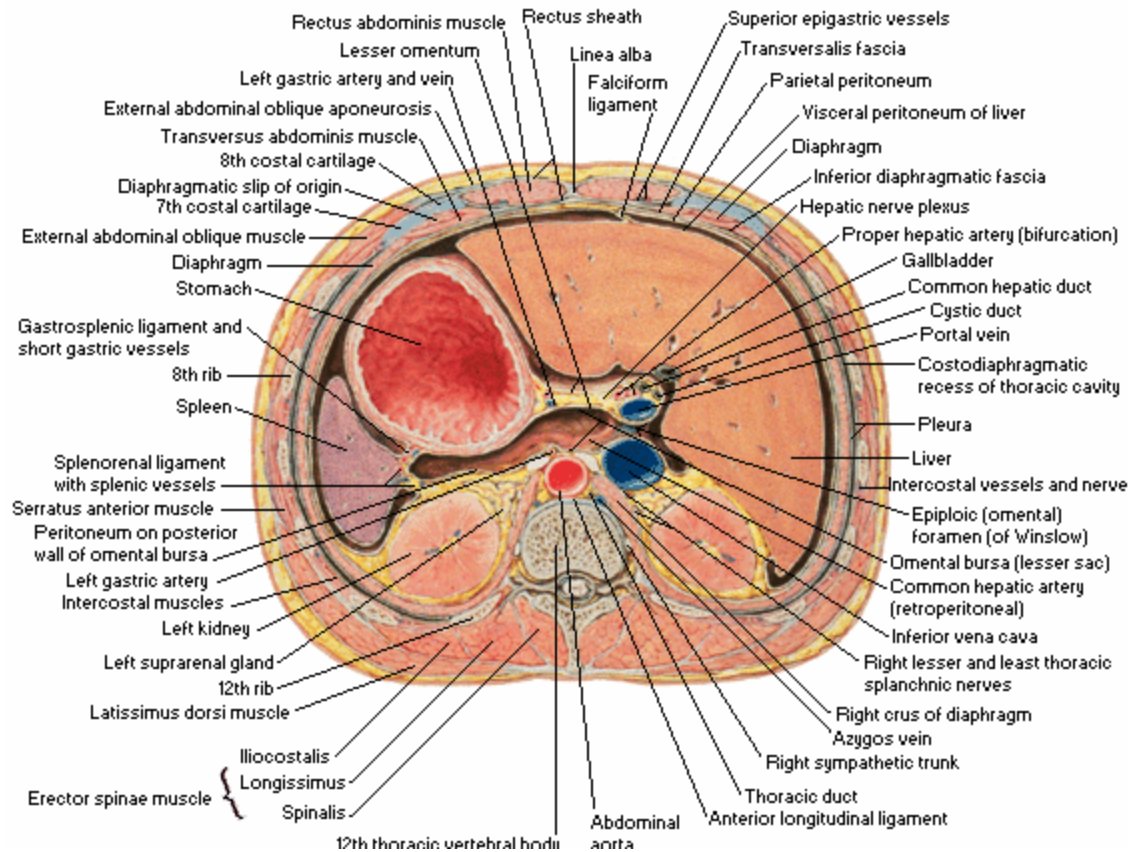


Dissection

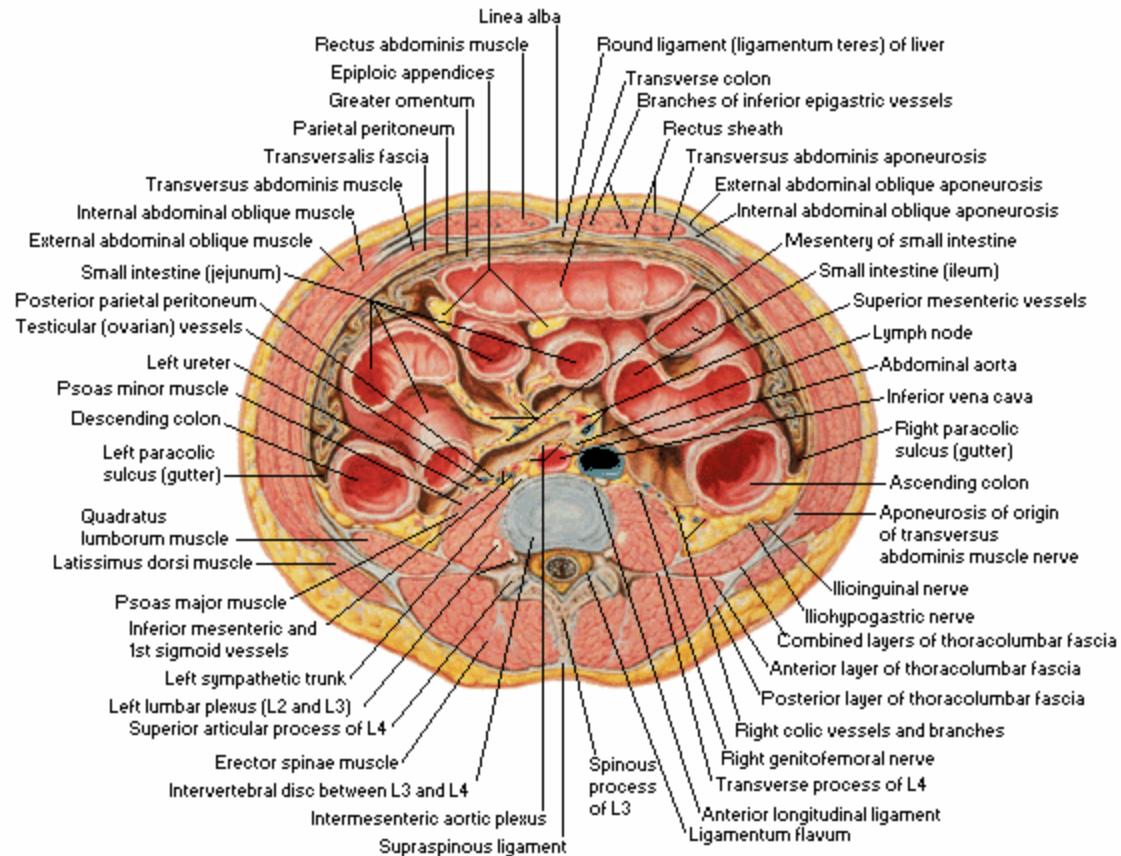


Schema

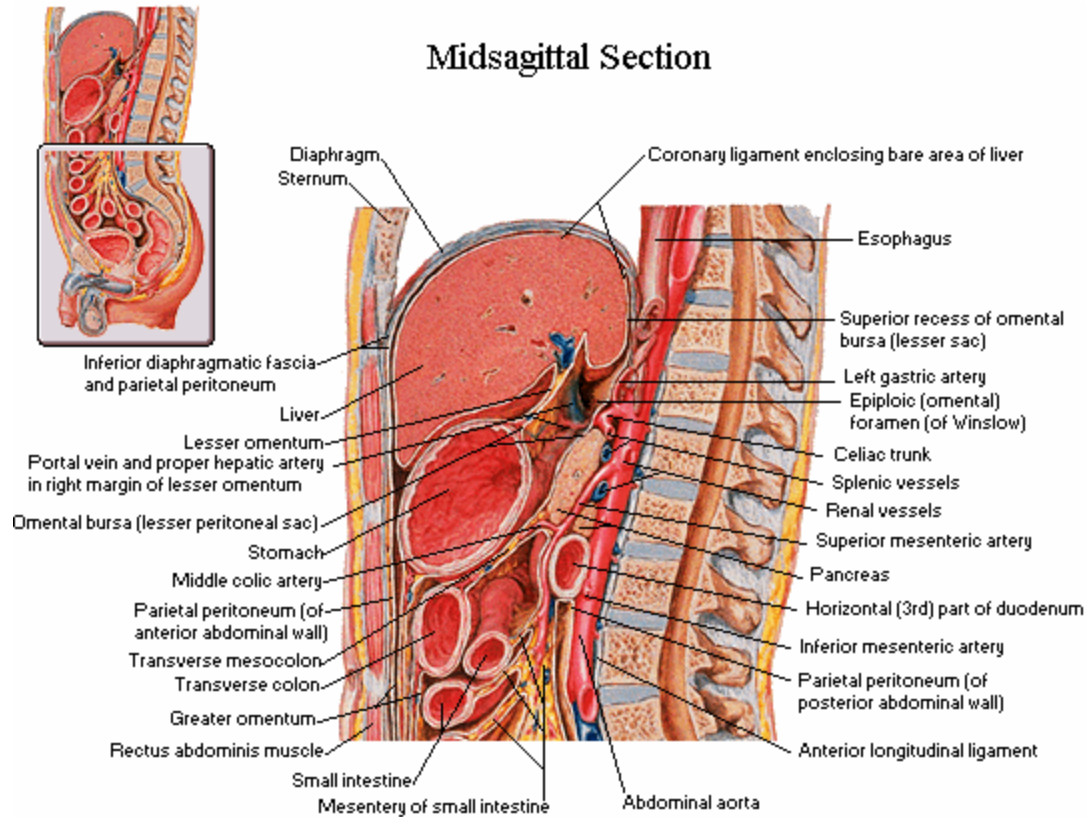




Cross Section Between L2 and L3

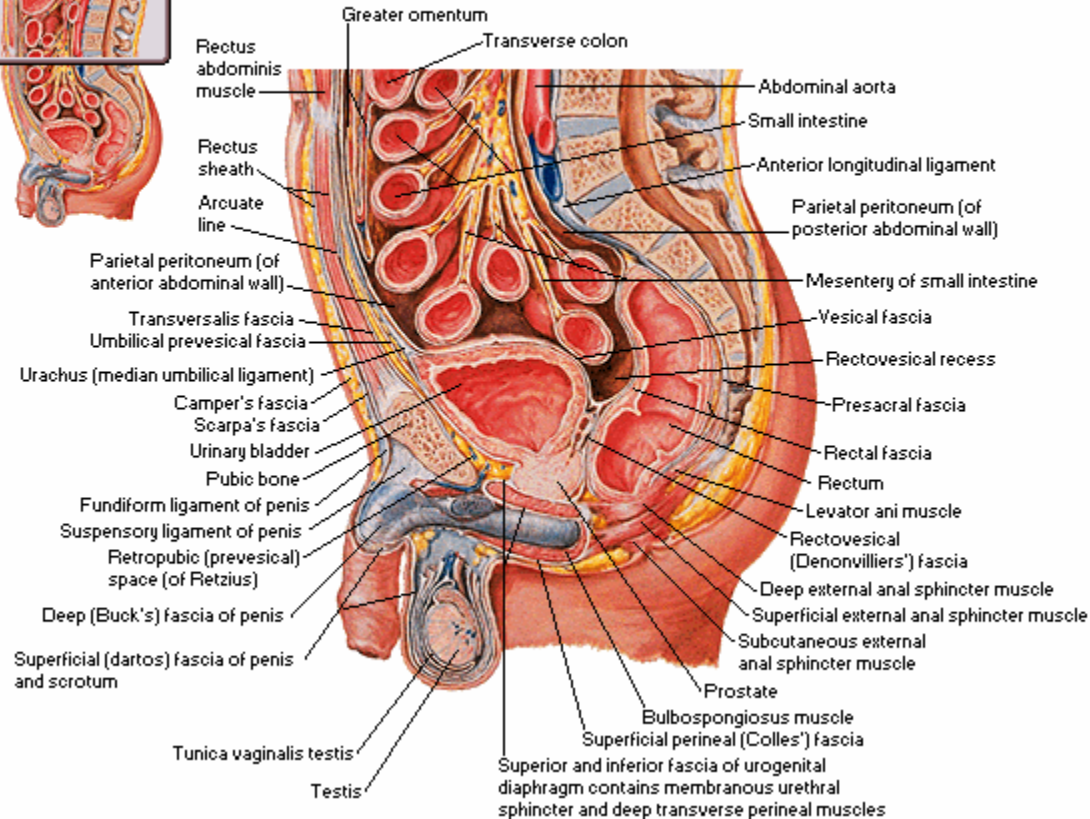


Midsagittal Section

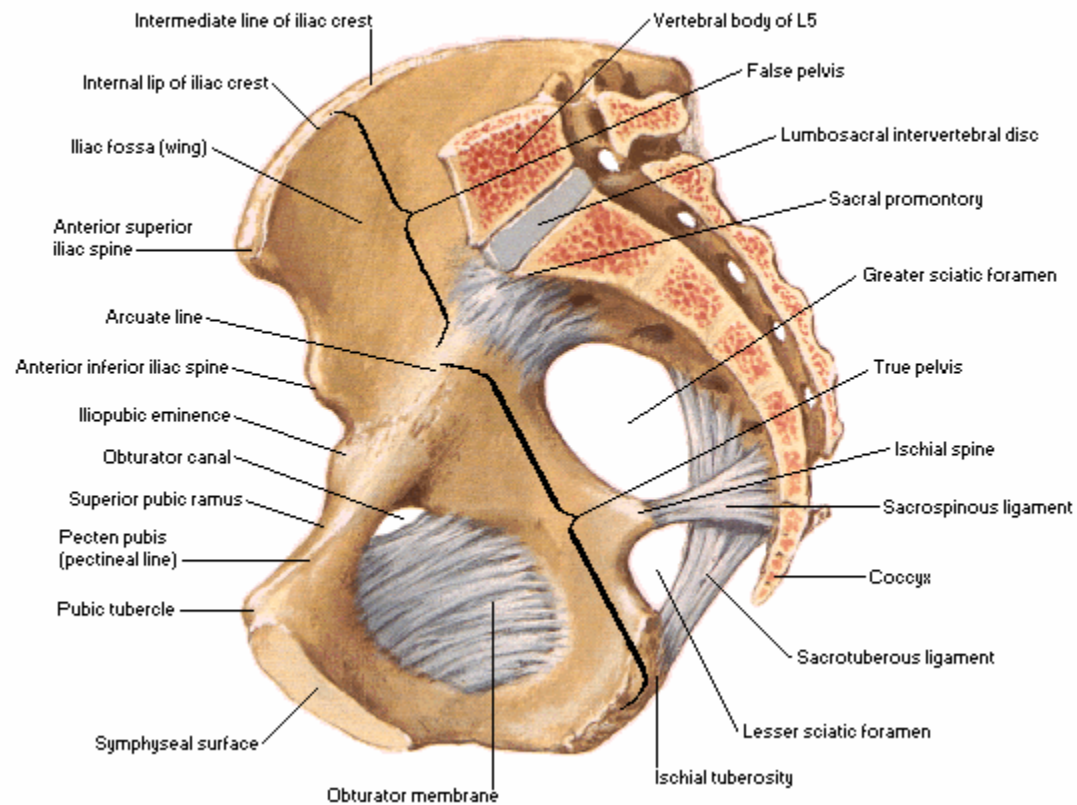




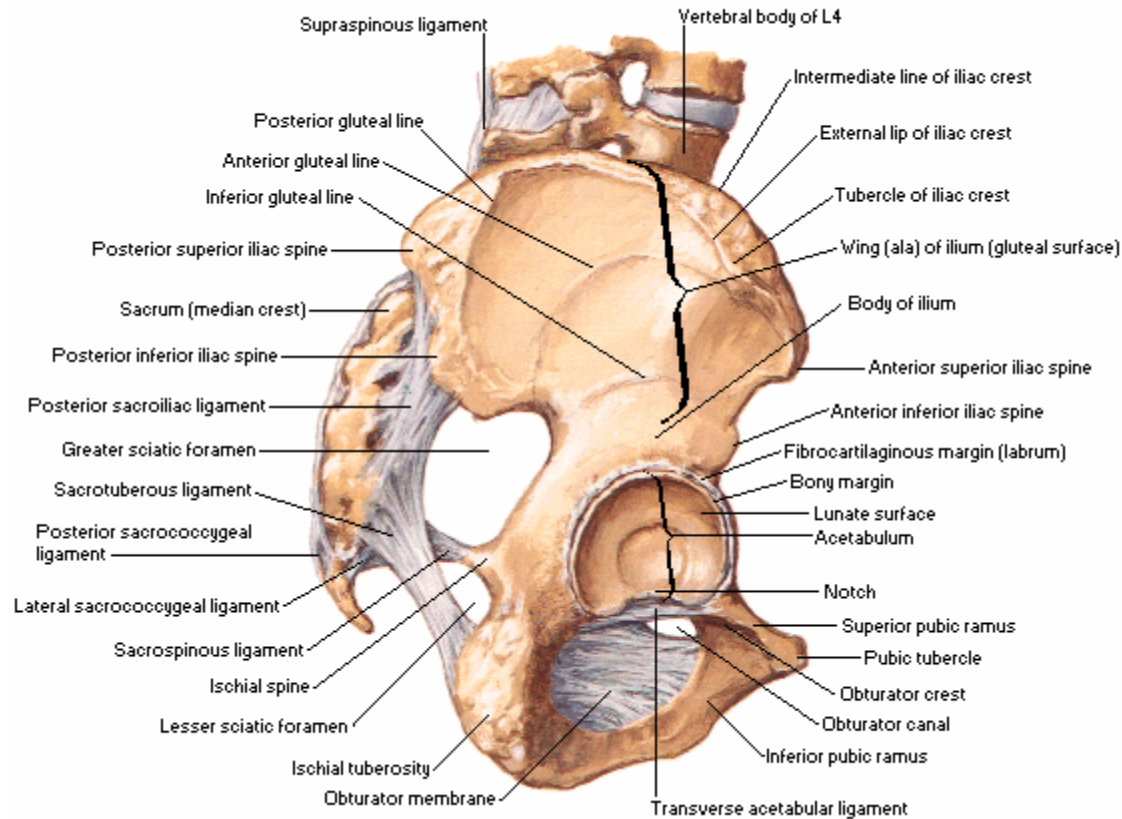
Midsagittal Section



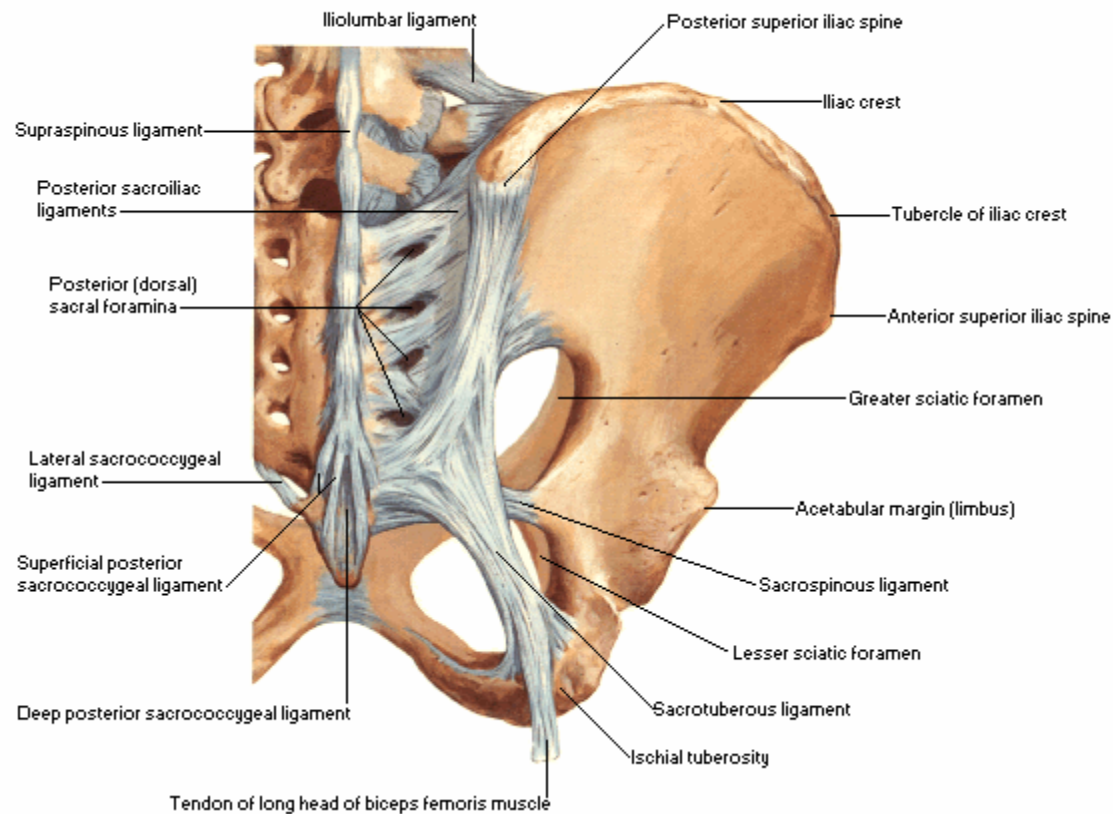
Midsagittal Section



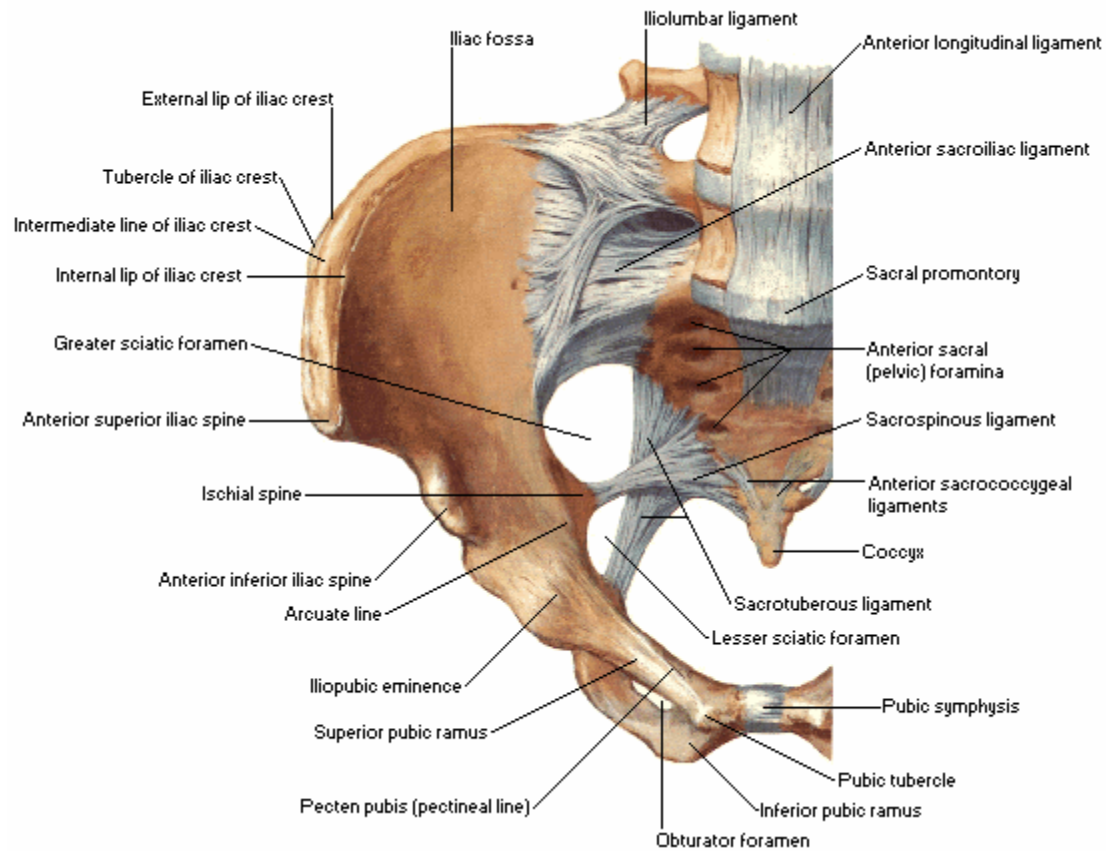
Lateral View



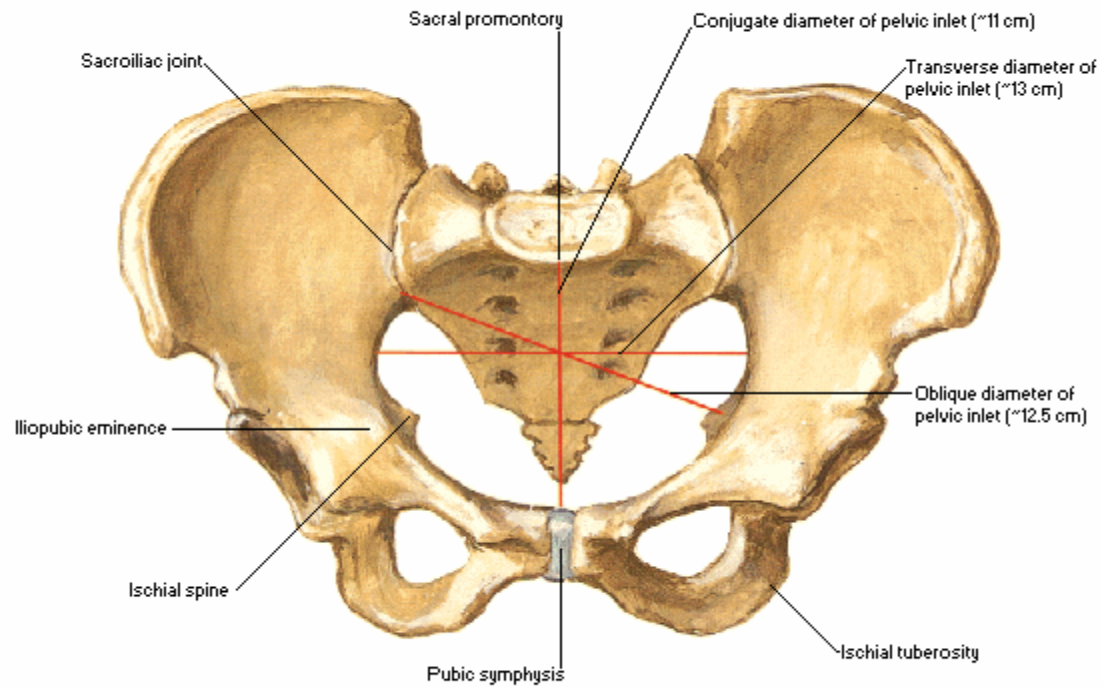
Posterior View



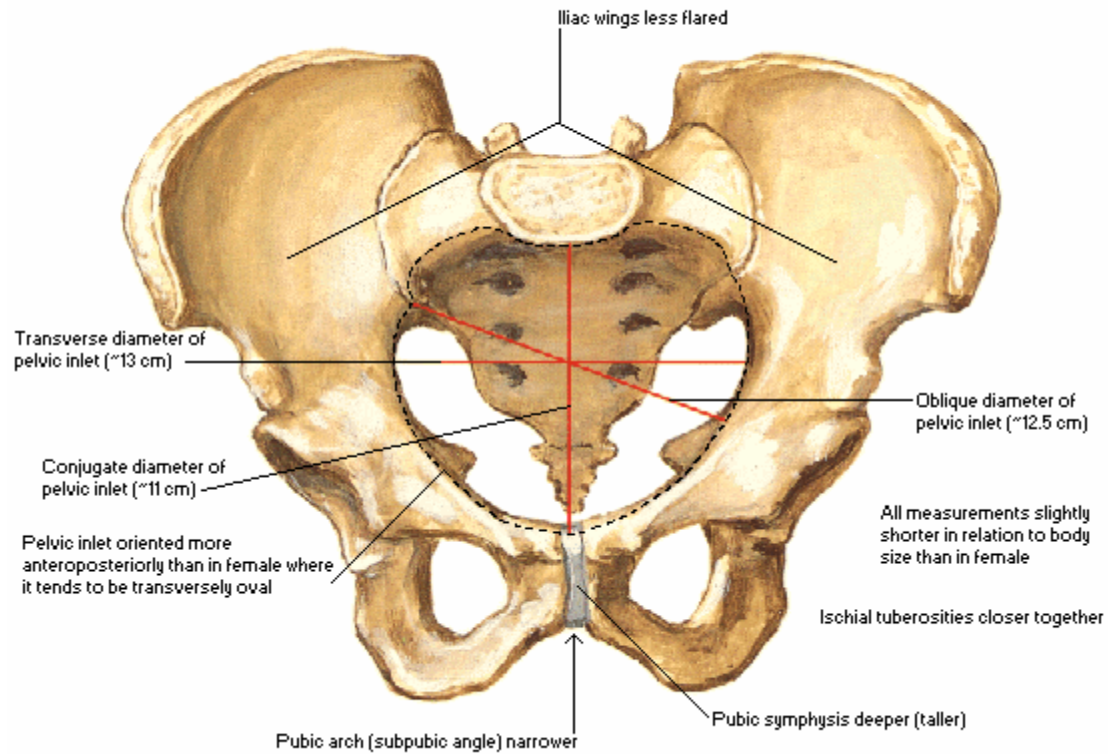
Anterior View



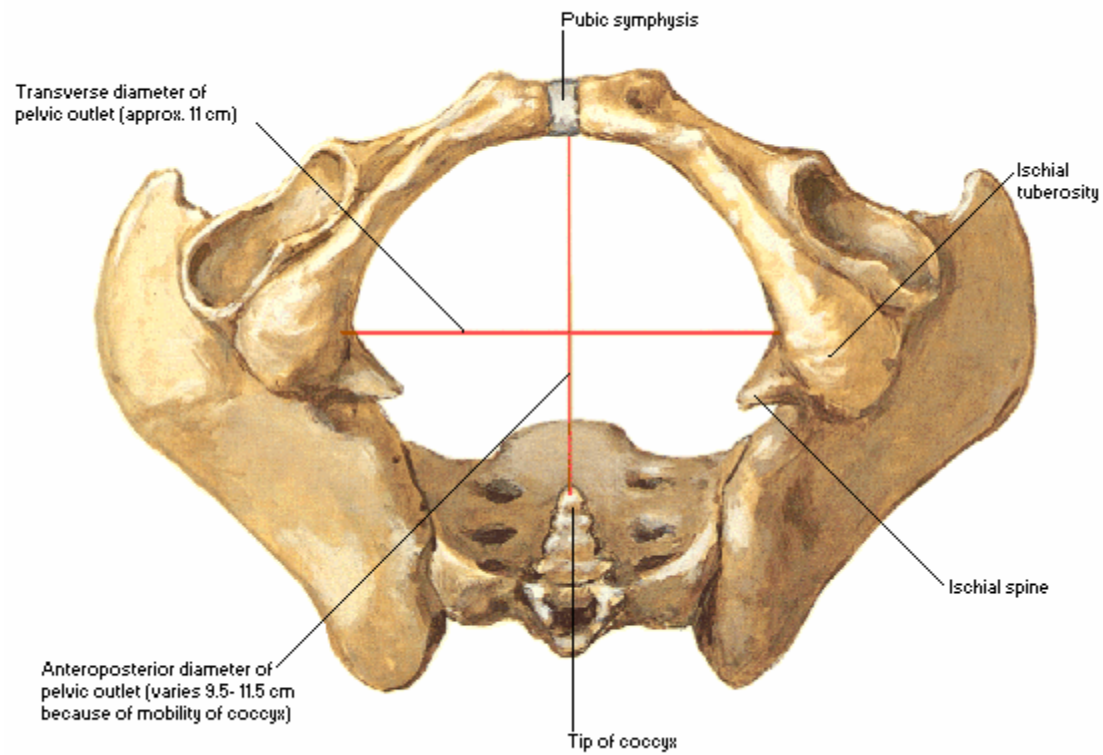
Measurements - Anterior View



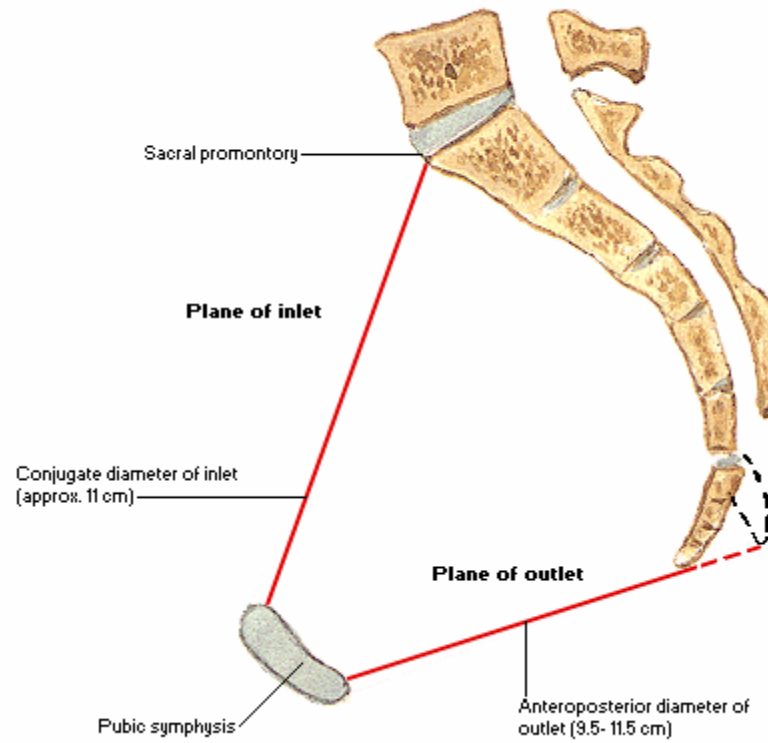
Measurements - Anterior View



Measurements - Inferior View



Measurements - Sagittal Section



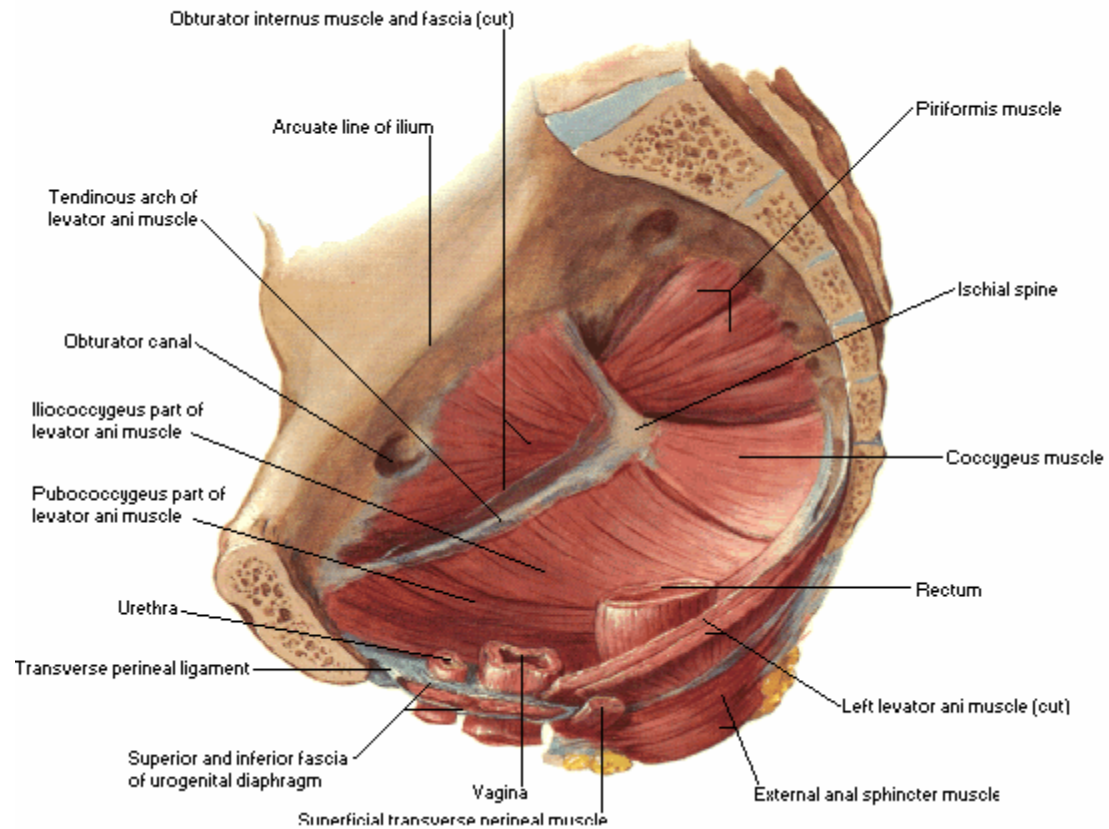
This anatomical diagram illustrates the female perineal region from an inferior perspective, focusing on the levator ani muscle and its associated structures. The diagram is color-coded, with muscles shown in red, ligaments in blue, and other tissues in naturalistic tones. The levator ani muscle is depicted as a broad, fan-shaped muscle that originates from the anterior sacral promontory and the coccyx, and converges towards the lesser sciatic foramen. Its fibers are organized into several distinct parts: the iliococcygeus, pubococcygeus, and puborectalis. The tendinous arch of the levator ani muscle is a prominent feature that supports the rectum and vagina. Other structures shown include the coccyx, coccygeus muscle, piriformis muscle, sacral promontory, anterior sacrococcygeal ligament, levator plate (median raphe), ischioanal fossa, ischioanal sphincter, and the lesser sciatic foramen. The diagram also shows the relationship between the levator ani and the surrounding ligaments, such as the sacrotuberous and sacrospinous ligaments.

Labels in the diagram include:

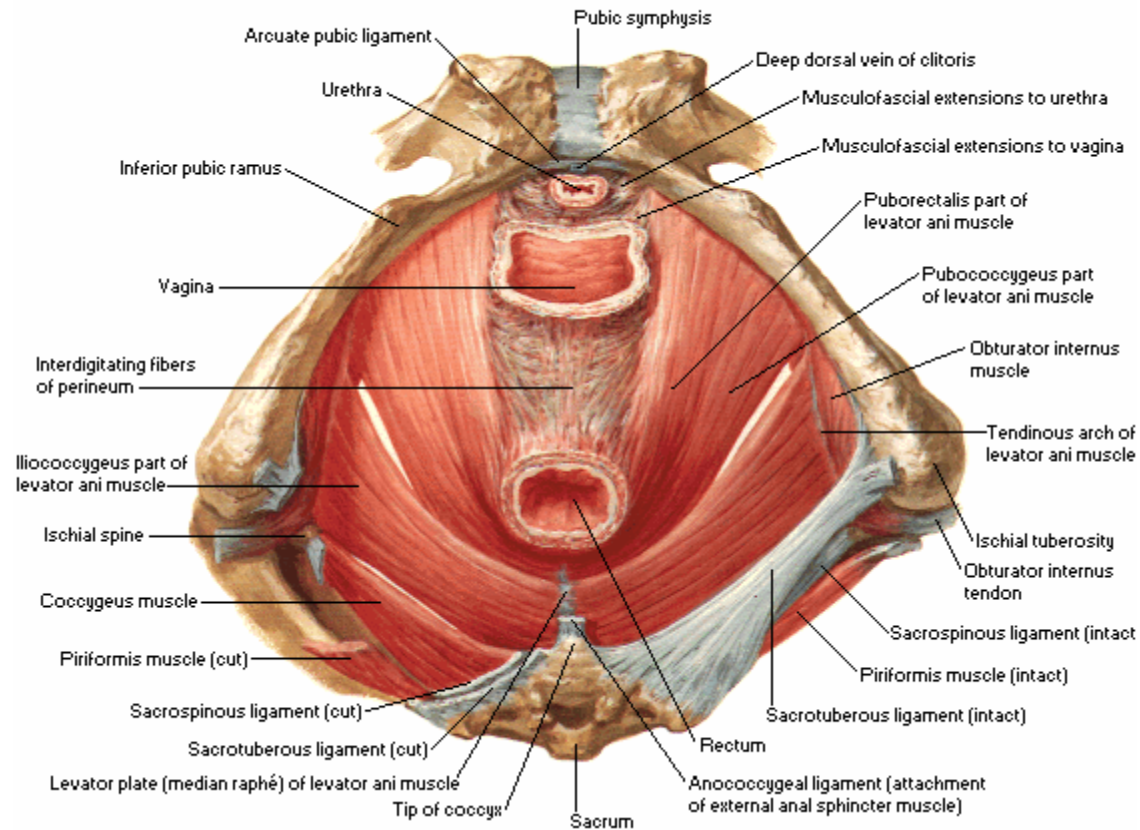
- Inguinal (Poupart's) ligament
- Pubic symphysis
- Deep dorsal vein of clitoris
- Transverse perineal ligament
- Superior fascia of urogenital diaphragm
- Obturator canal
- Pubococcygeus and puborectalis part of levator ani muscle
- Tendinous arch of levator ani muscle
- Coccygeus muscle
- Piriformis muscle
- Coccyx
- Sacral promontory
- Anterior sacrococcygeal ligament
- Levator plate (median raphe) of levator ani muscle
- Iliococcygeus part of levator ani muscle
- Ischial spine
- Fascia over obturator internus muscle
- Rectum
- Vagina
- Urethra
- Arcuate pubic ligament

Sacral promontory

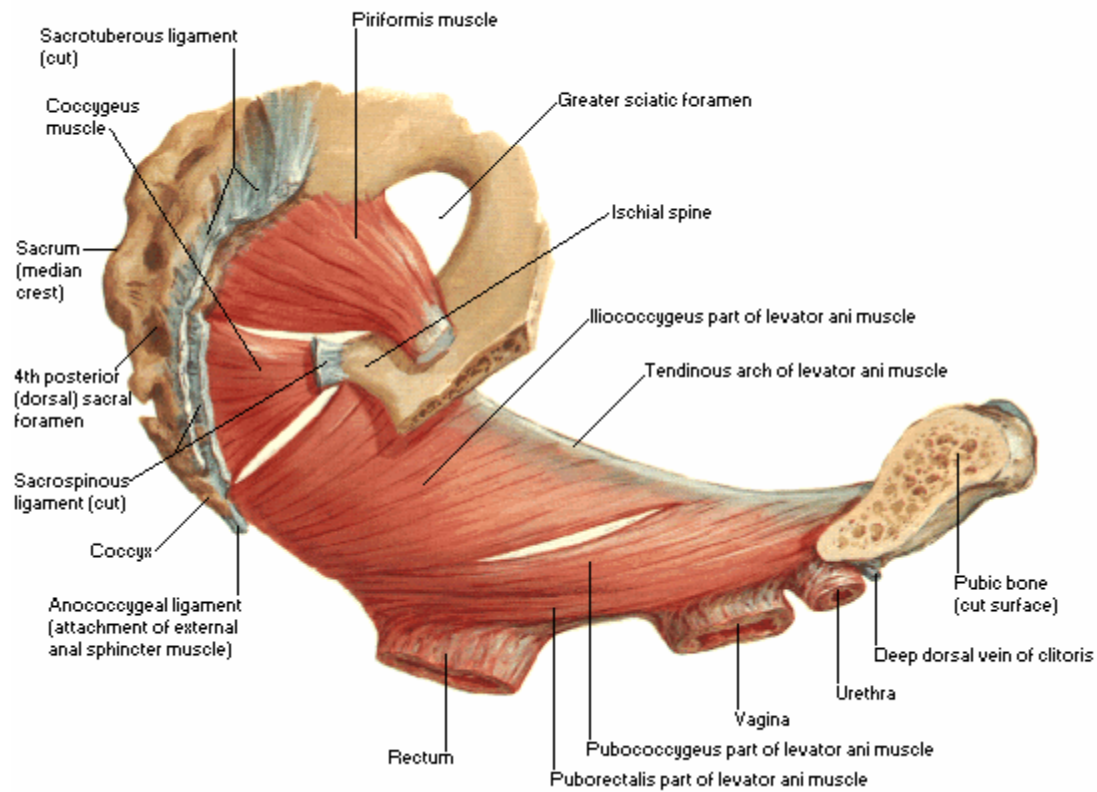
Medial View



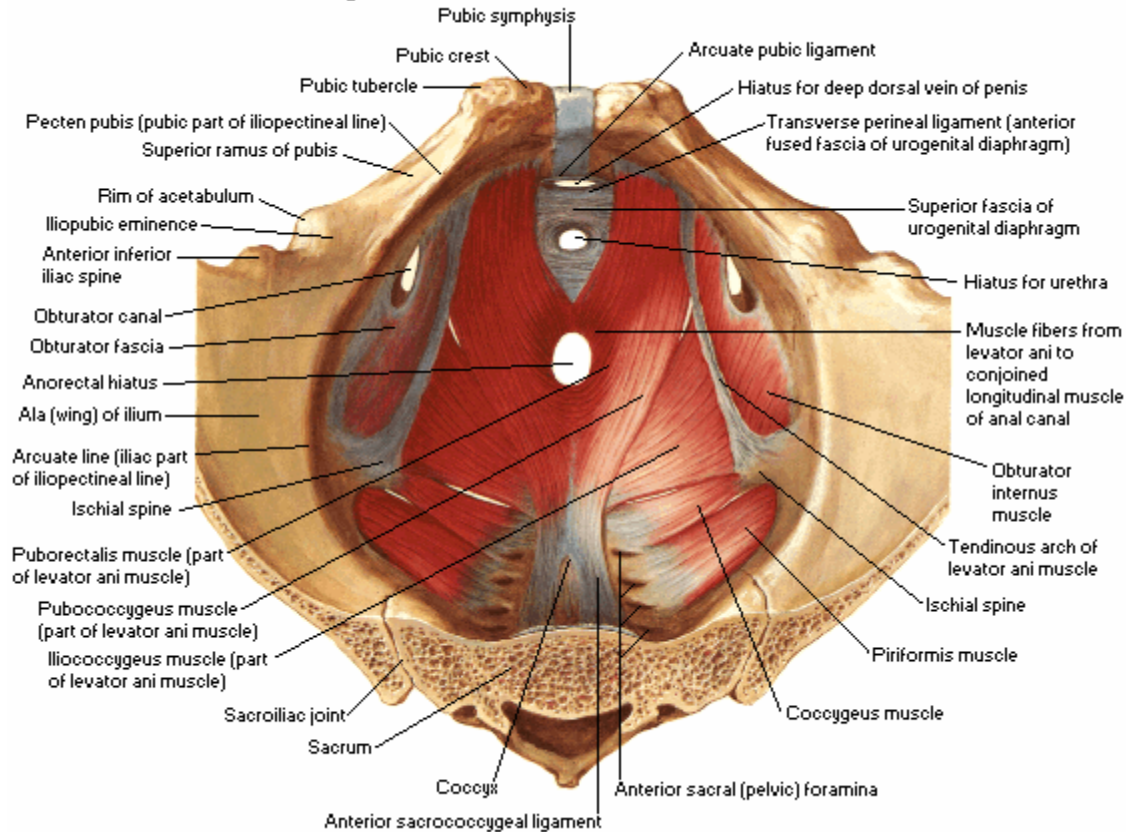
Inferior View



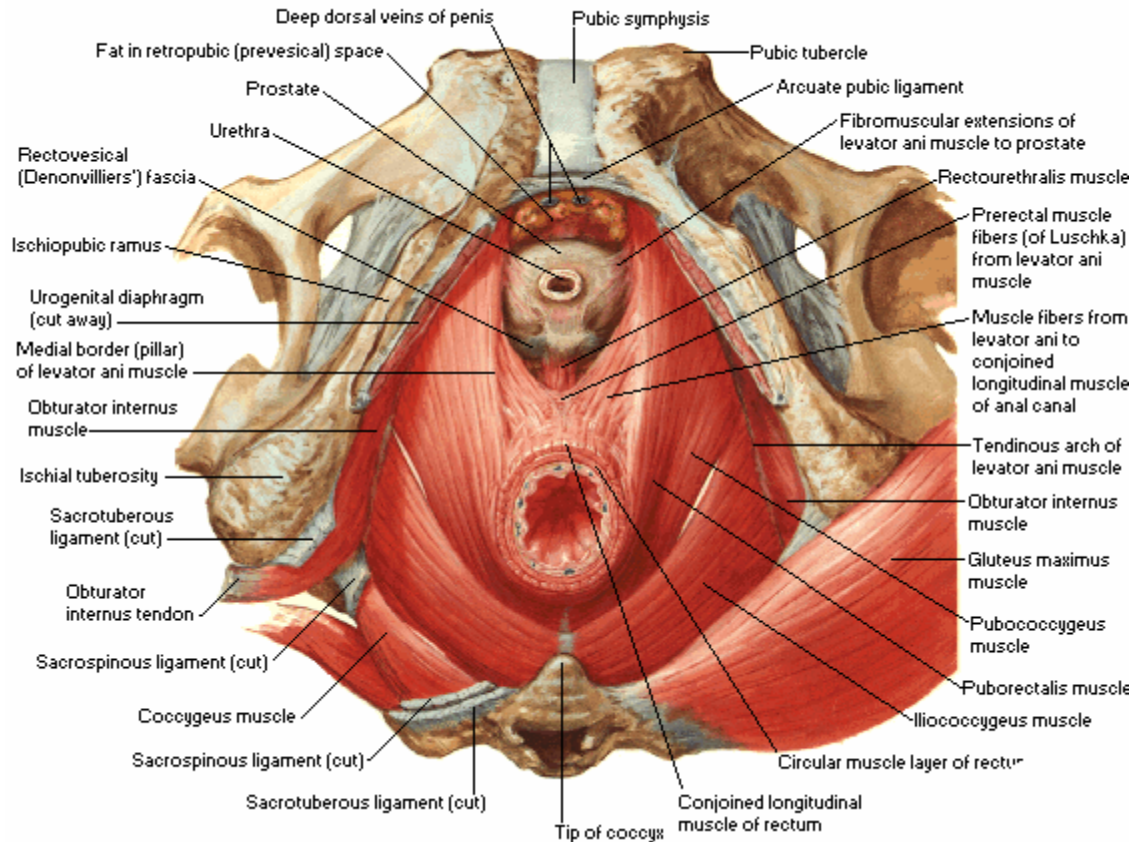
Lateral View



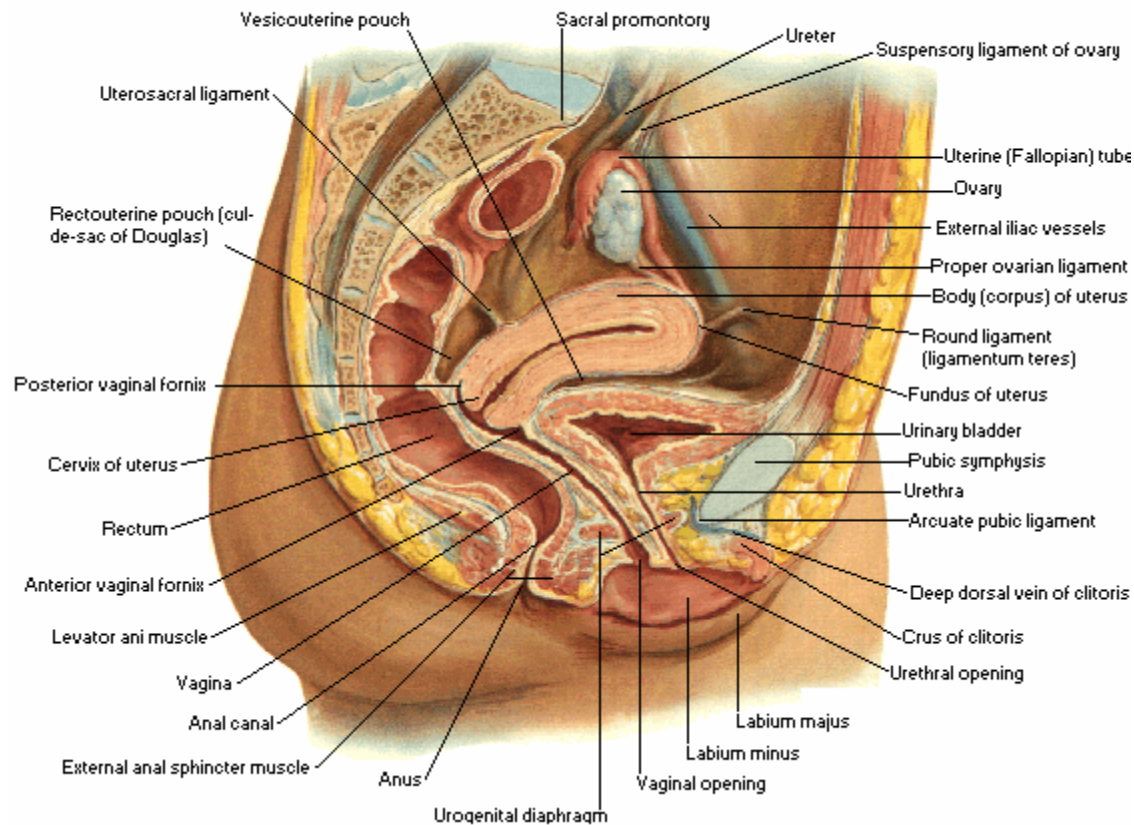
Superior View - Viscera Removed



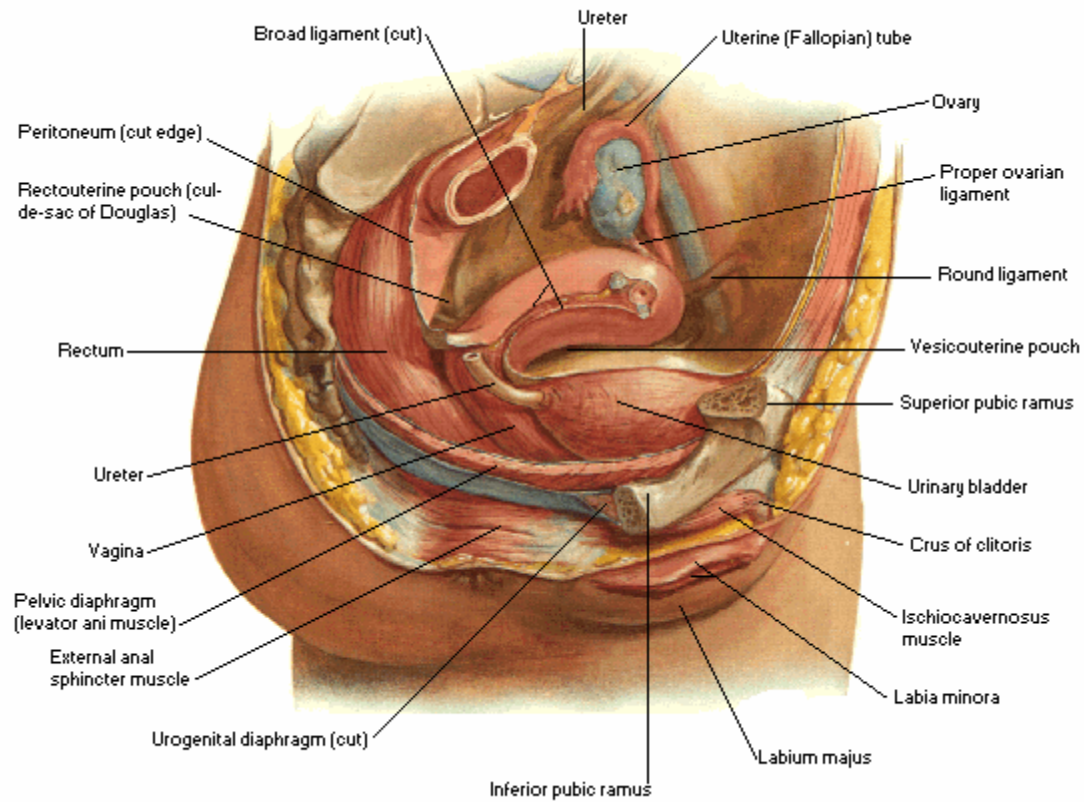
Inferior View



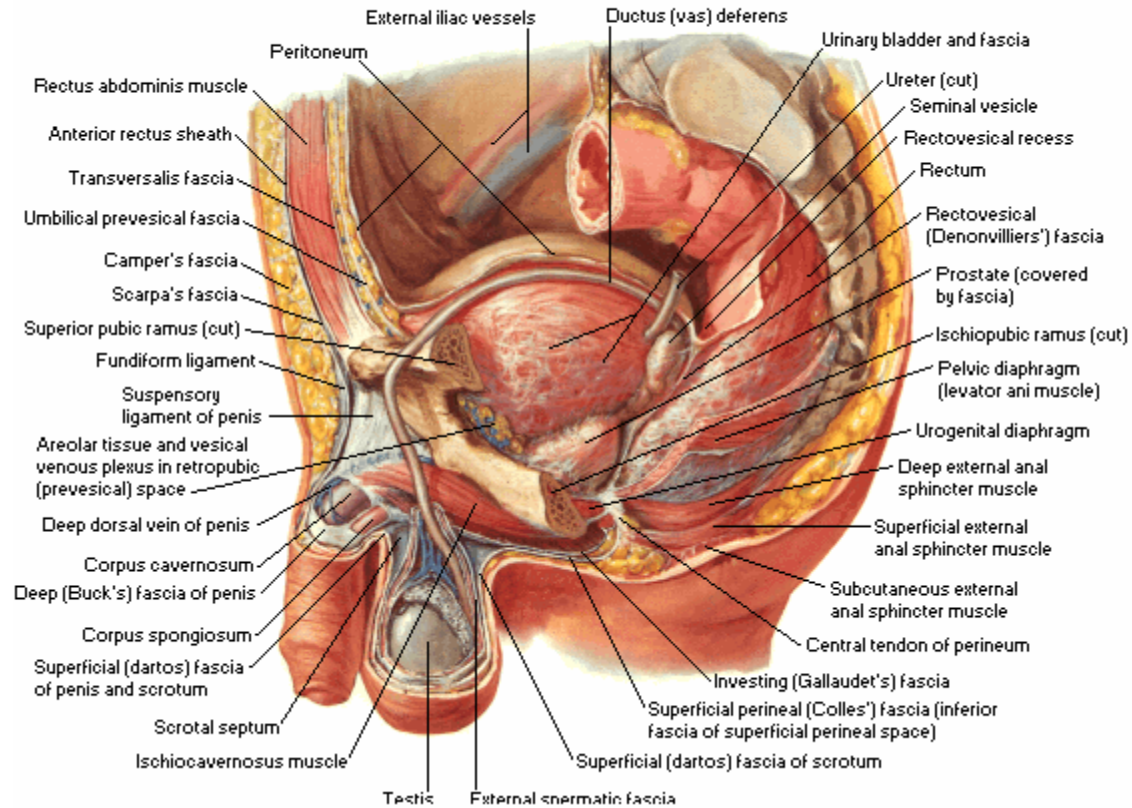
Midsagittal Section



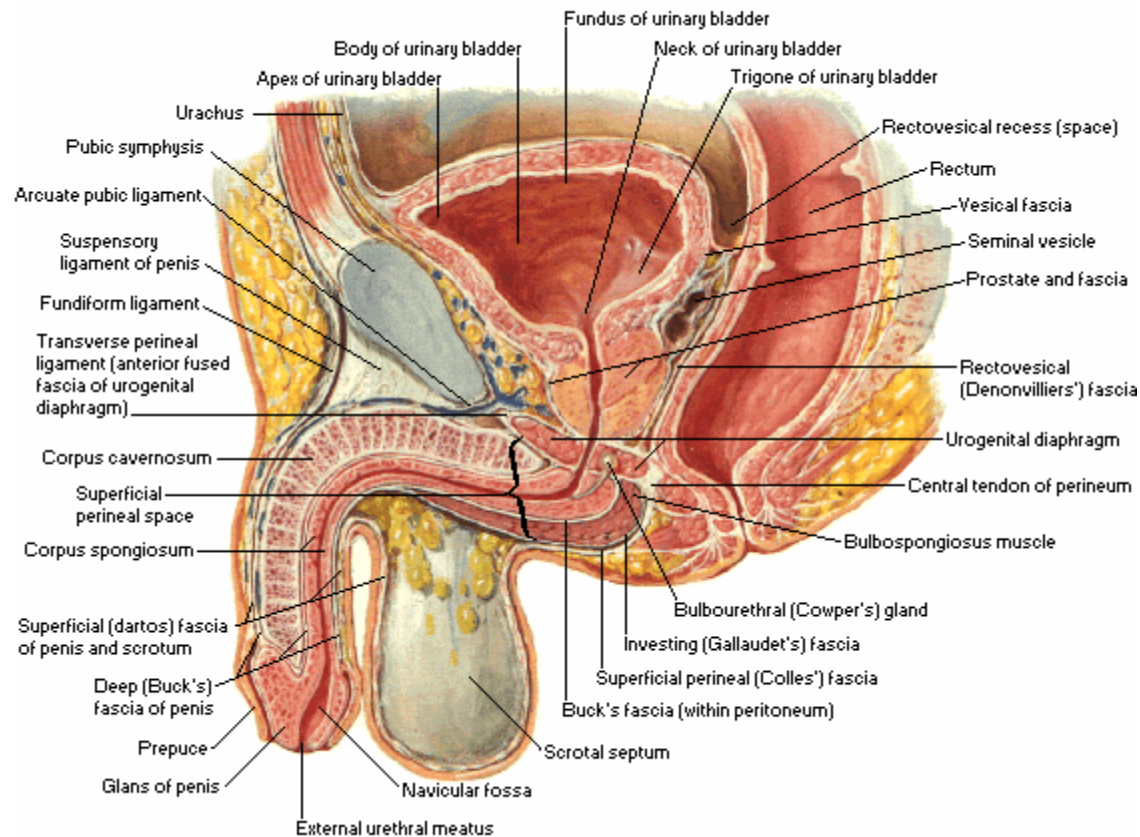
Paramedian Sagittal Section



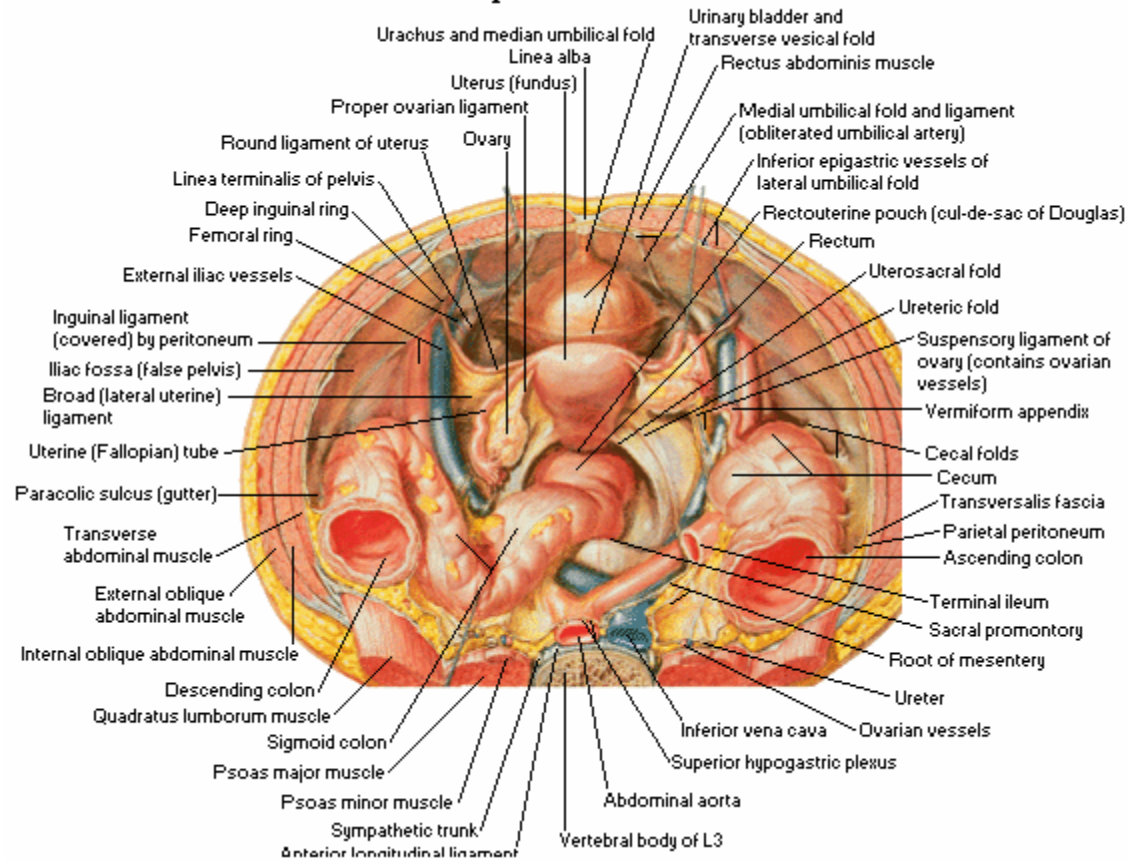
Paramedian Sagittal Section



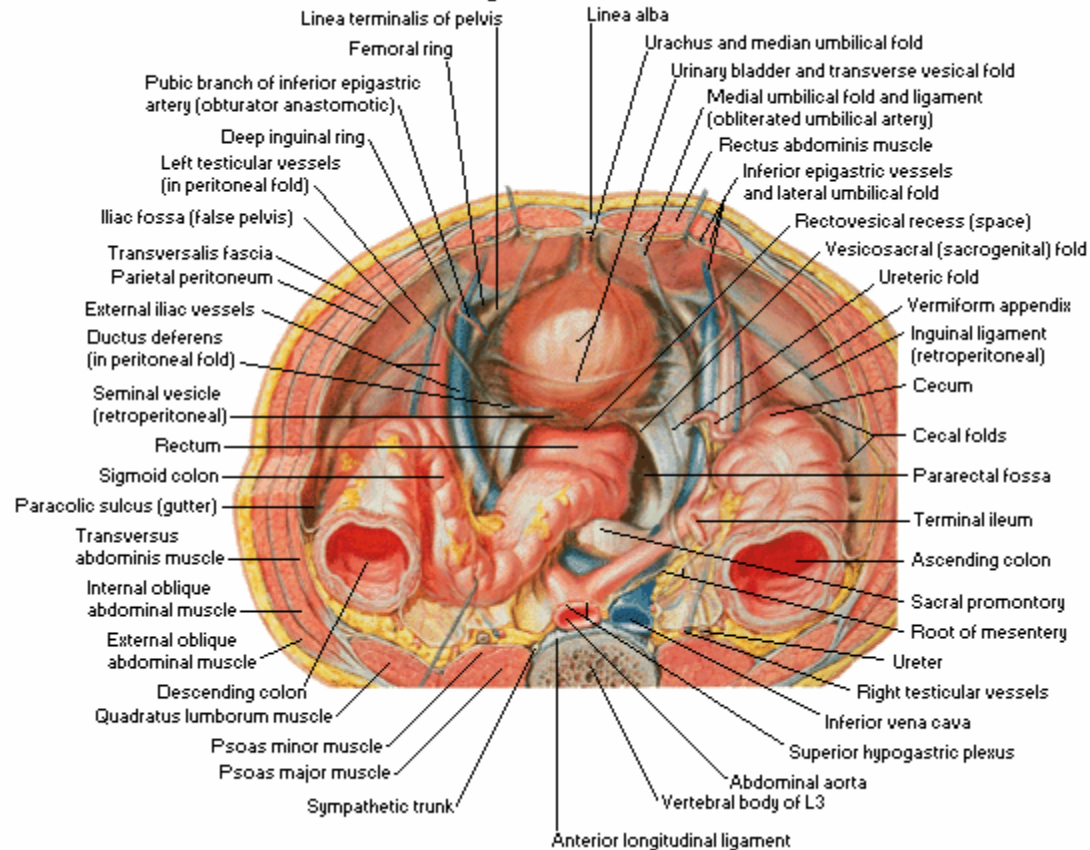
Midsagittal Section



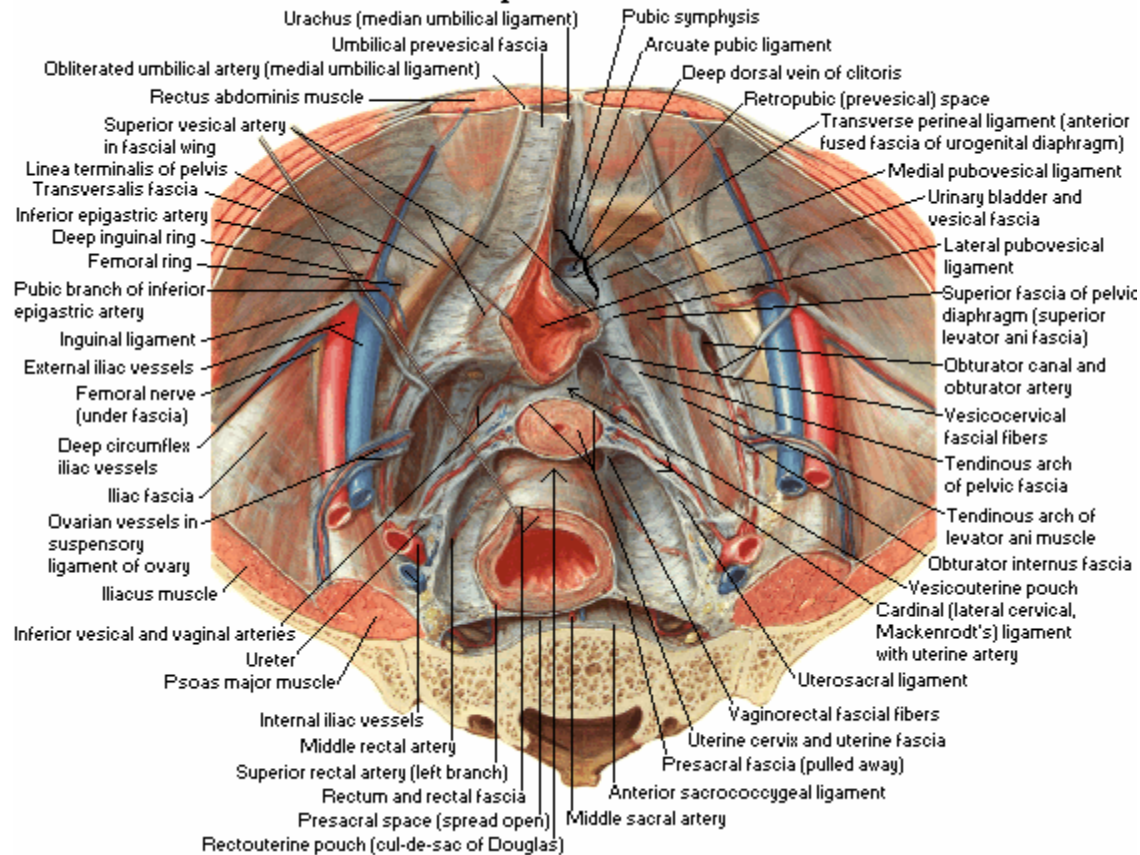
Superior View



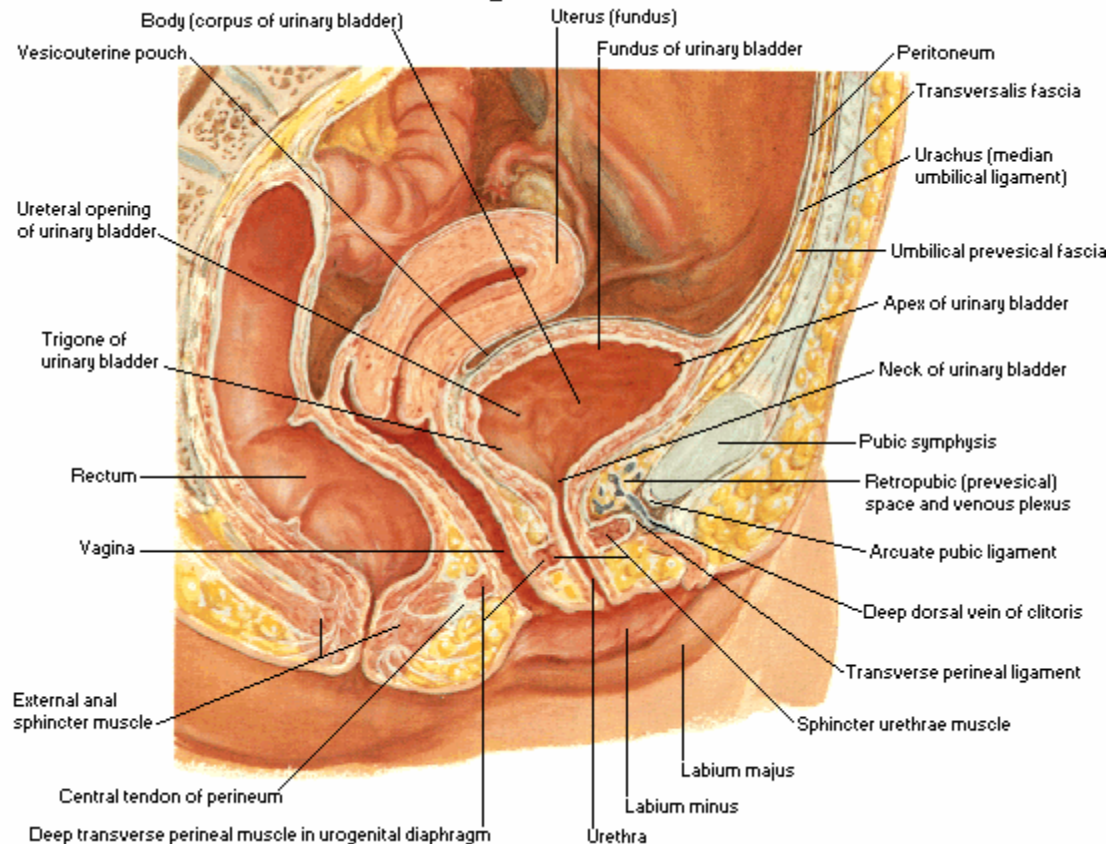
Superior View



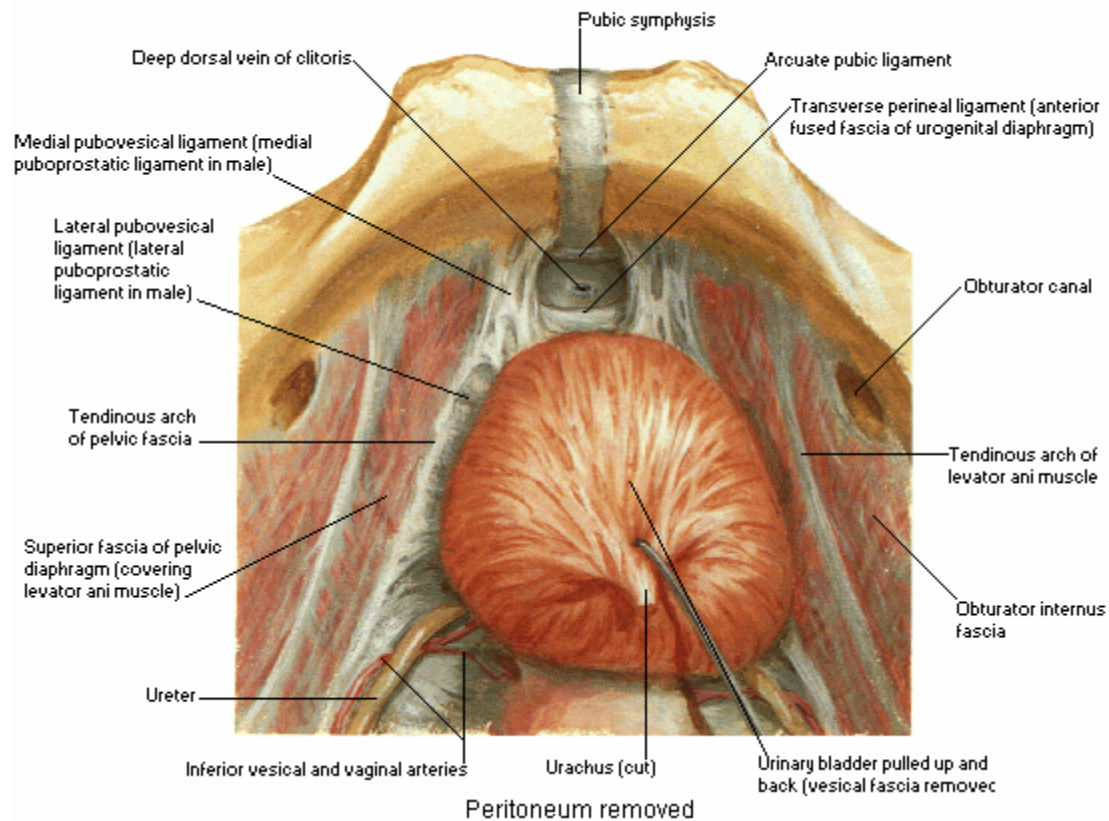
Superior View



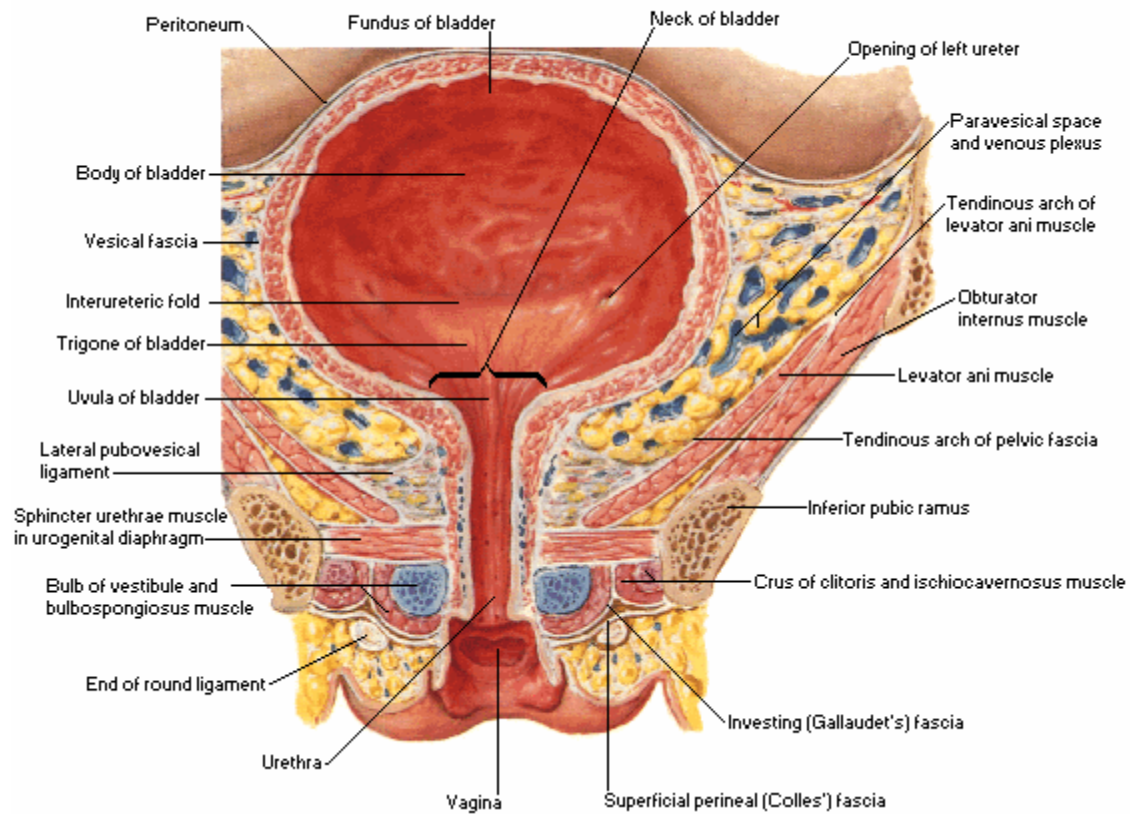
Midsagittal Section



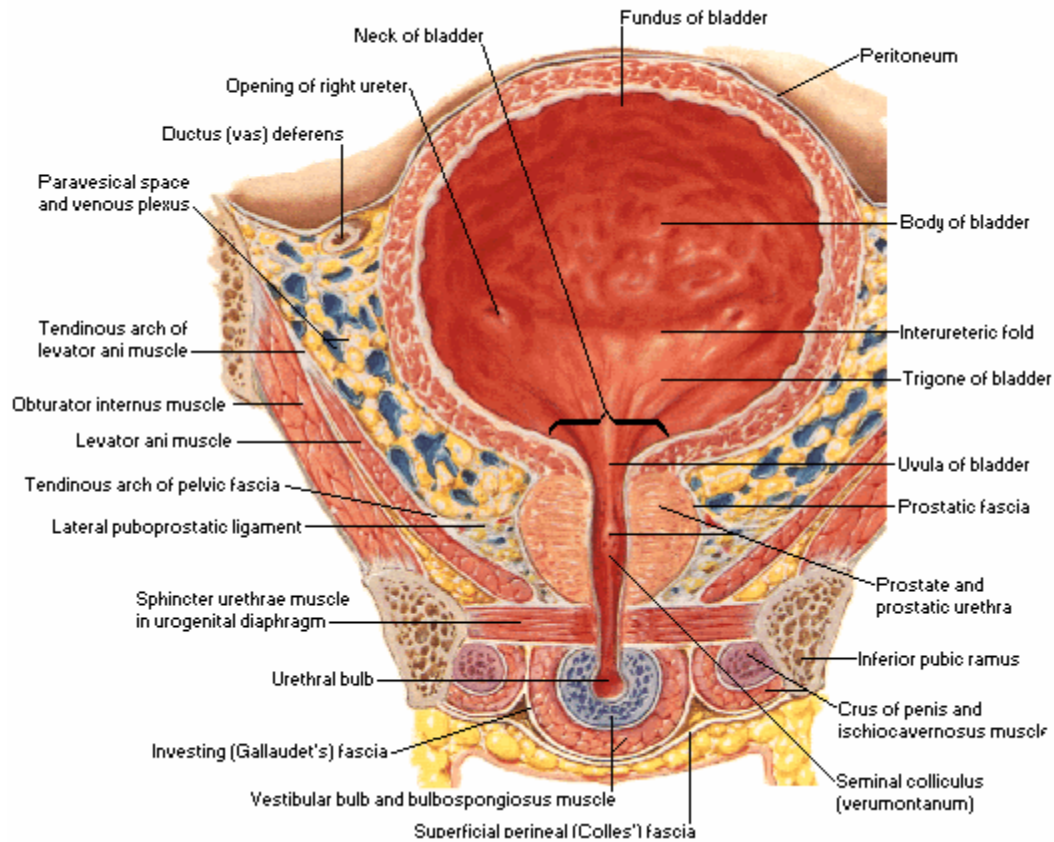
Peritoneum removed



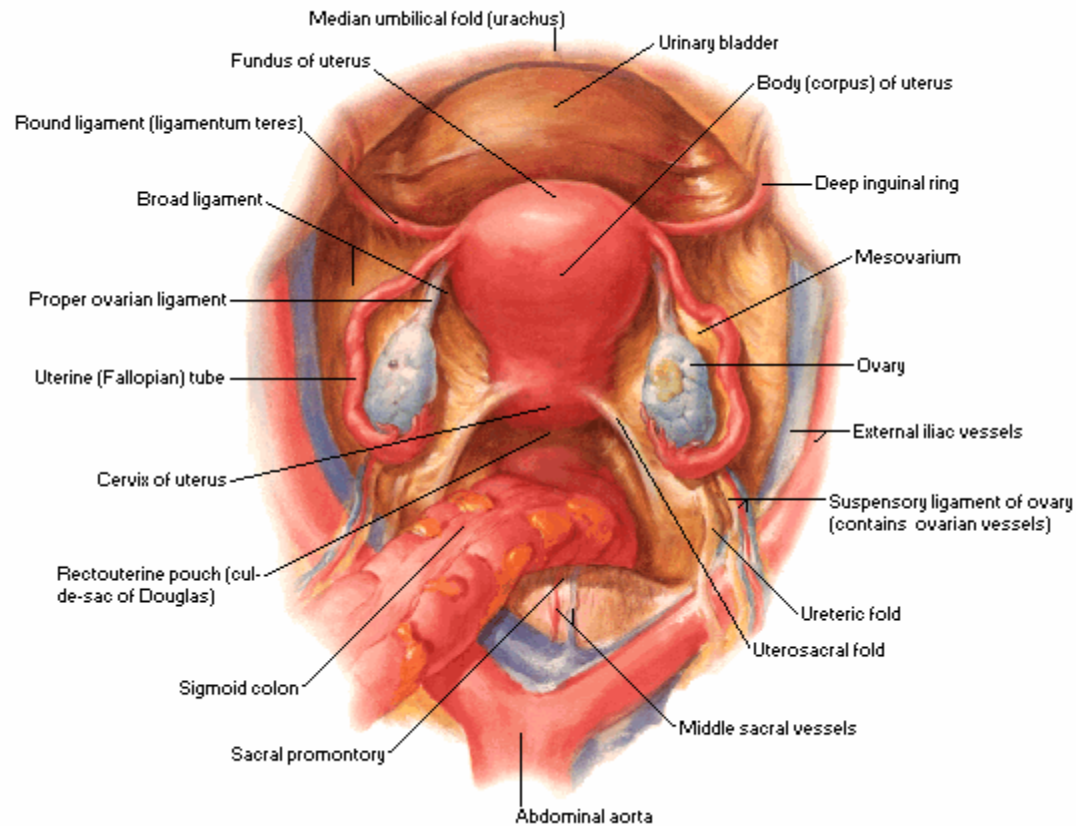
Frontal Section



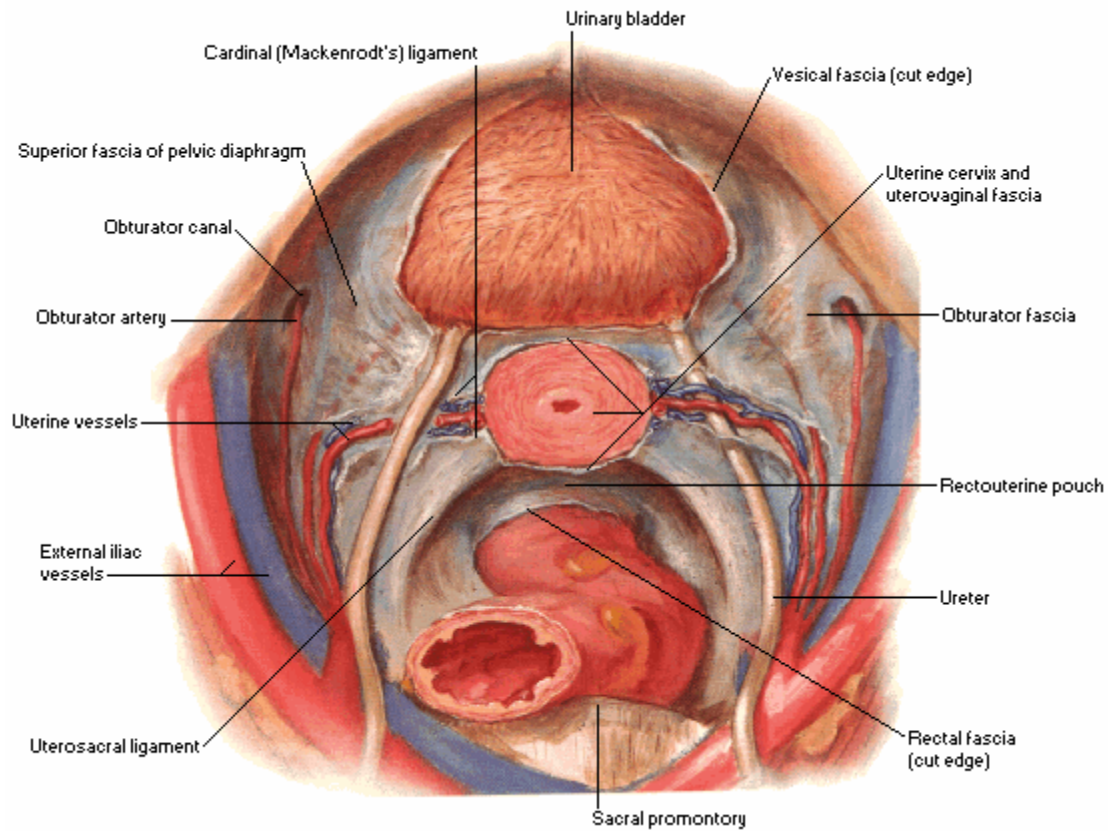
Frontal Section

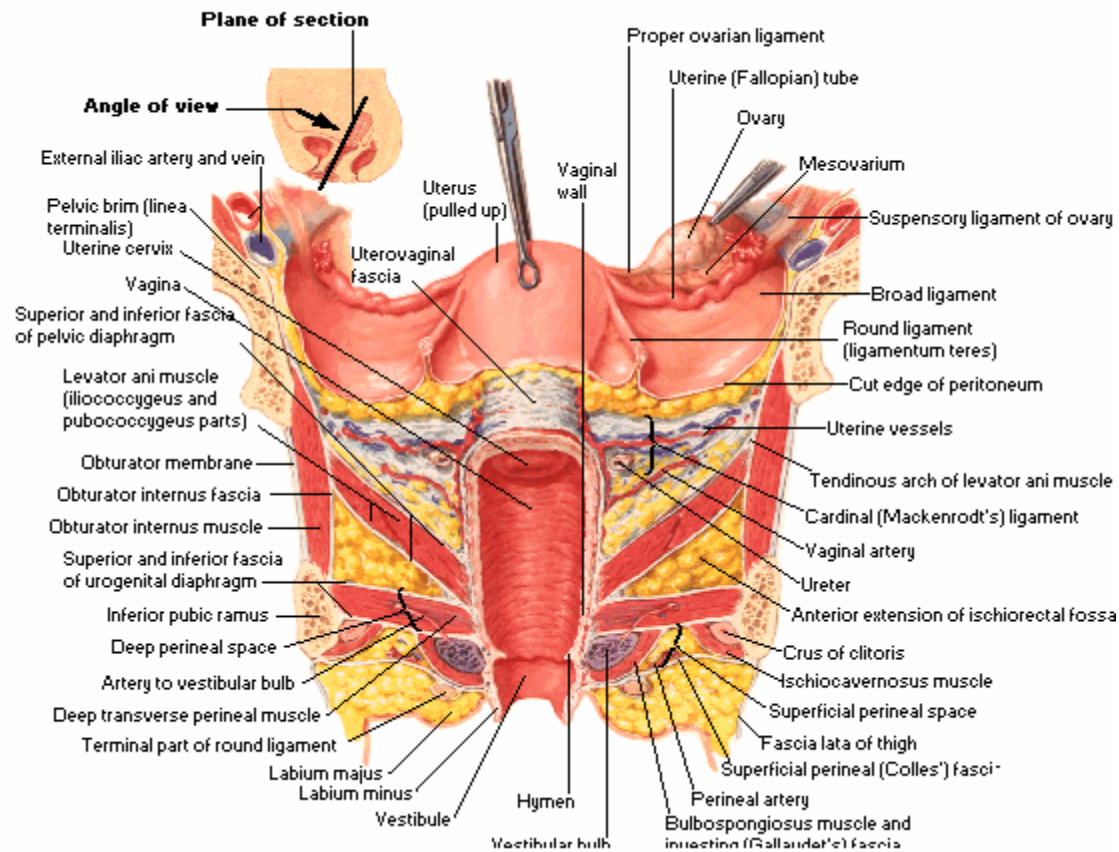


Superior View - Peritoneum Intact

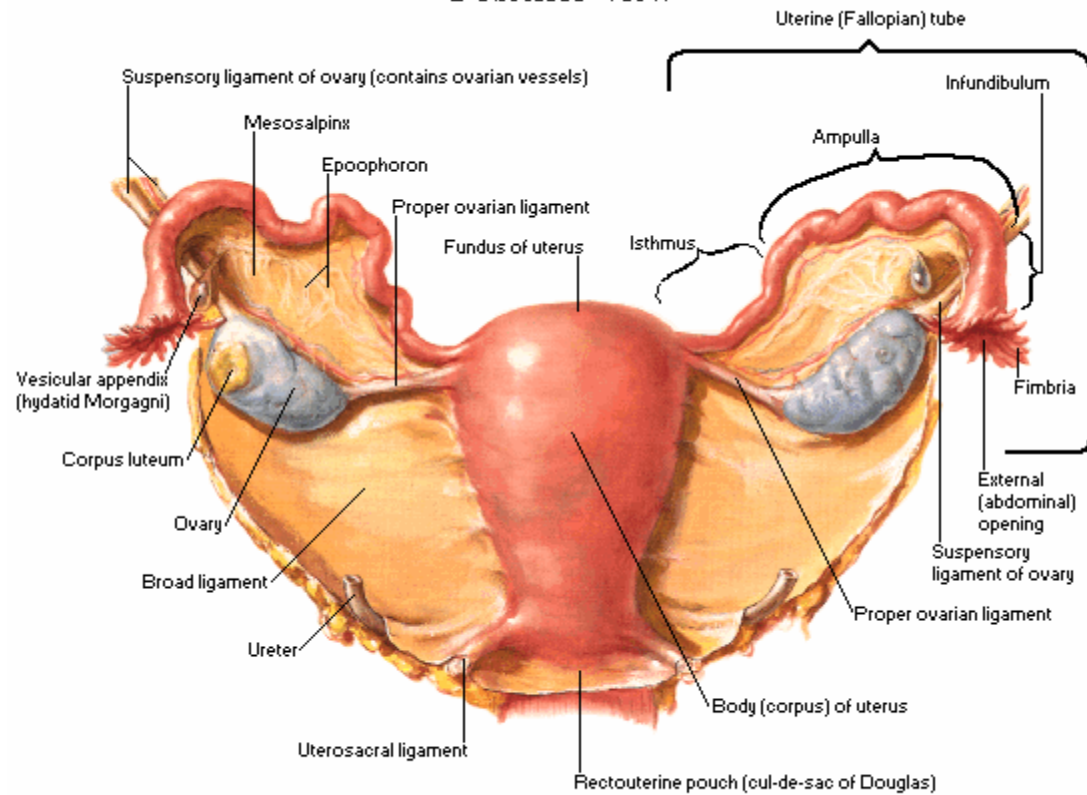


Superior View - Peritoneum Removed

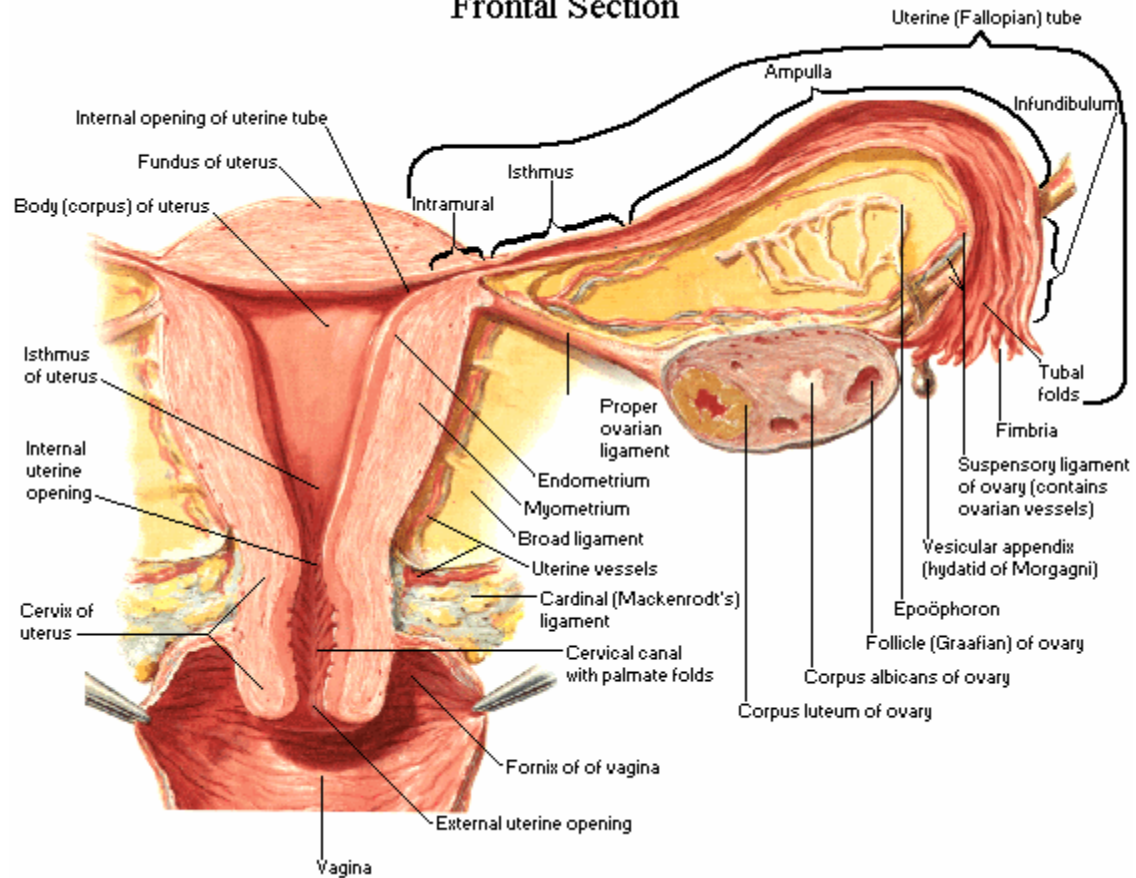




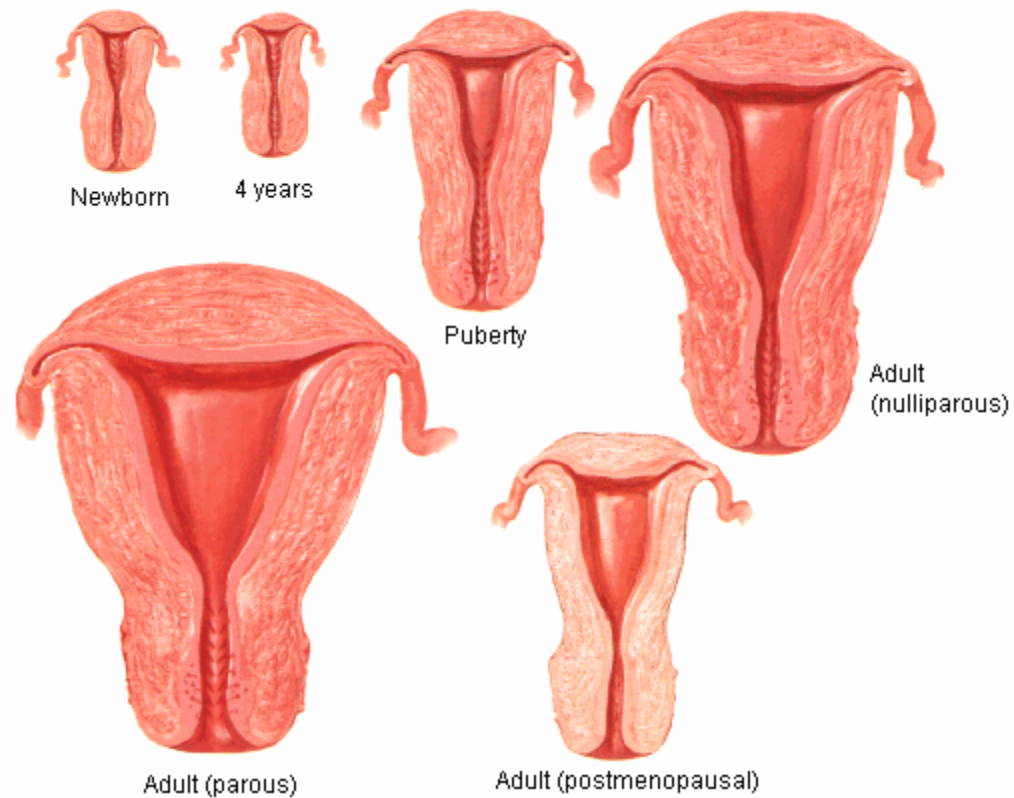
Posterior View



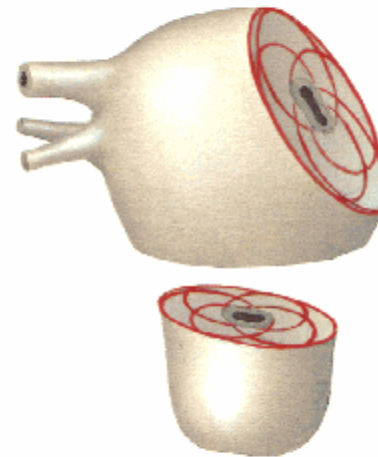
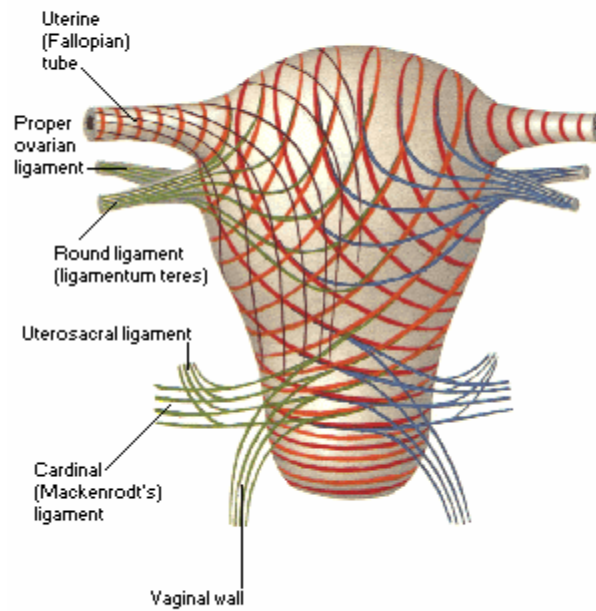
Frontal Section



Changes with Age

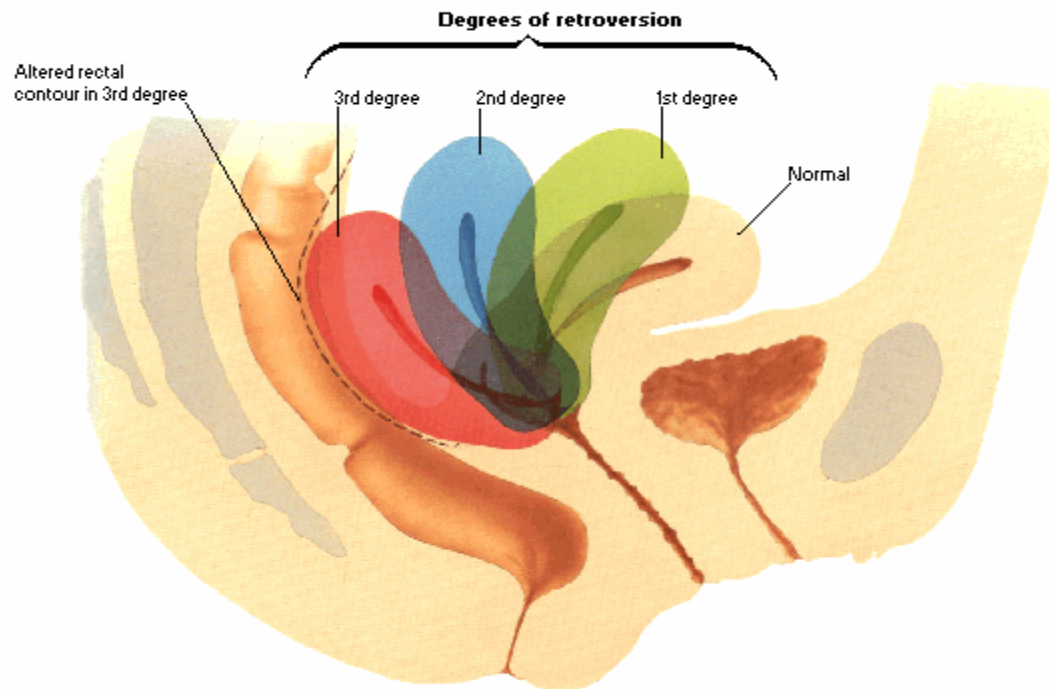


Schema of Musculature

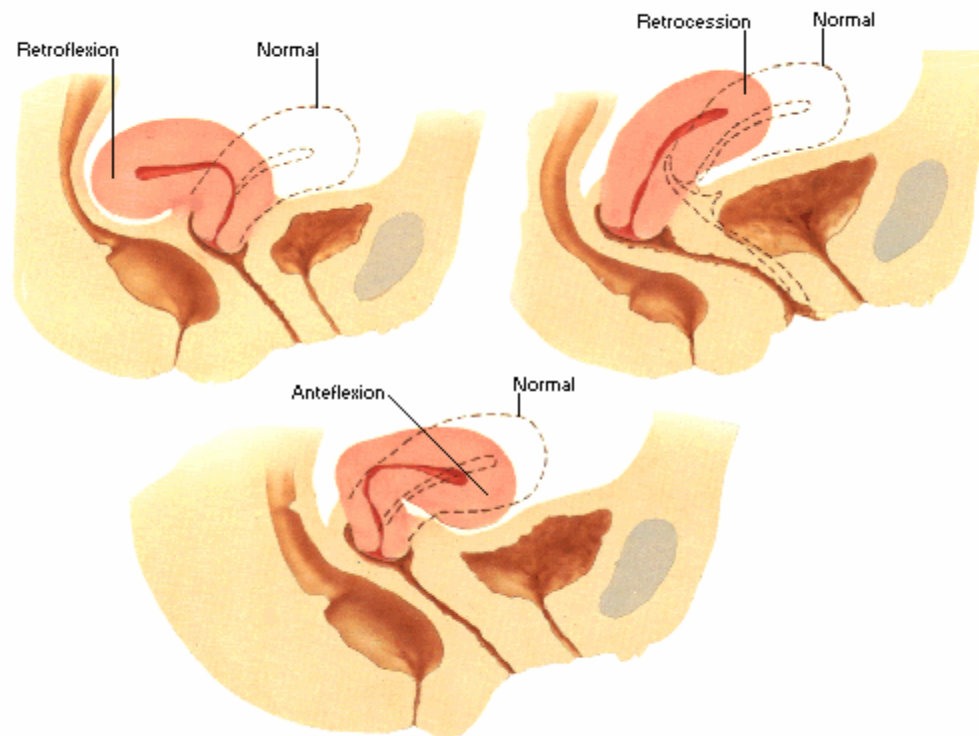


Spiral fibers pass deeply into wall and interlace (schema)

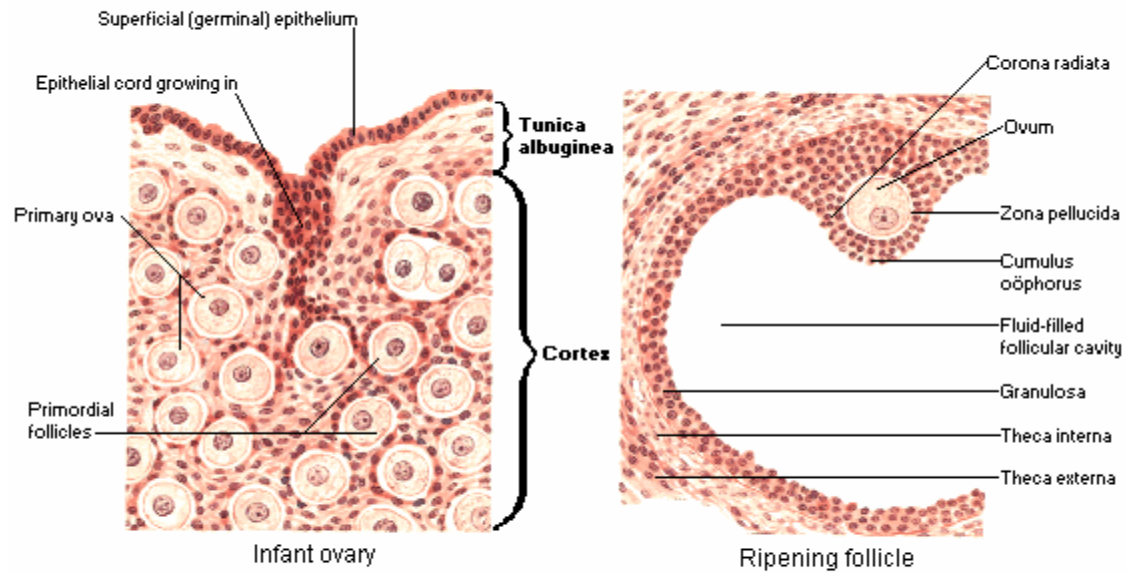
Variations in Position

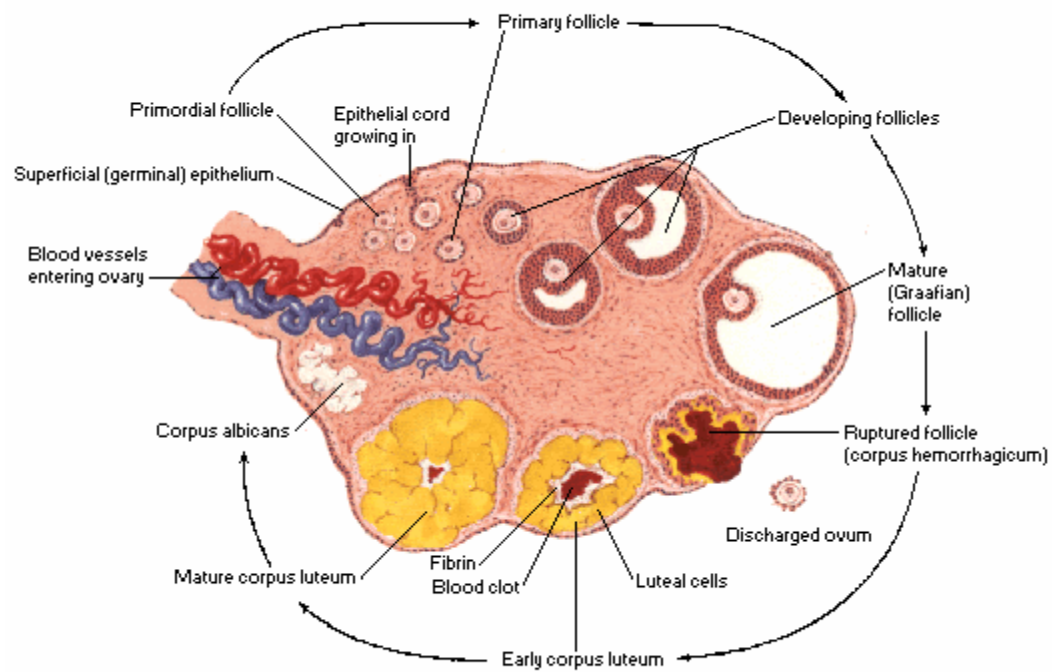


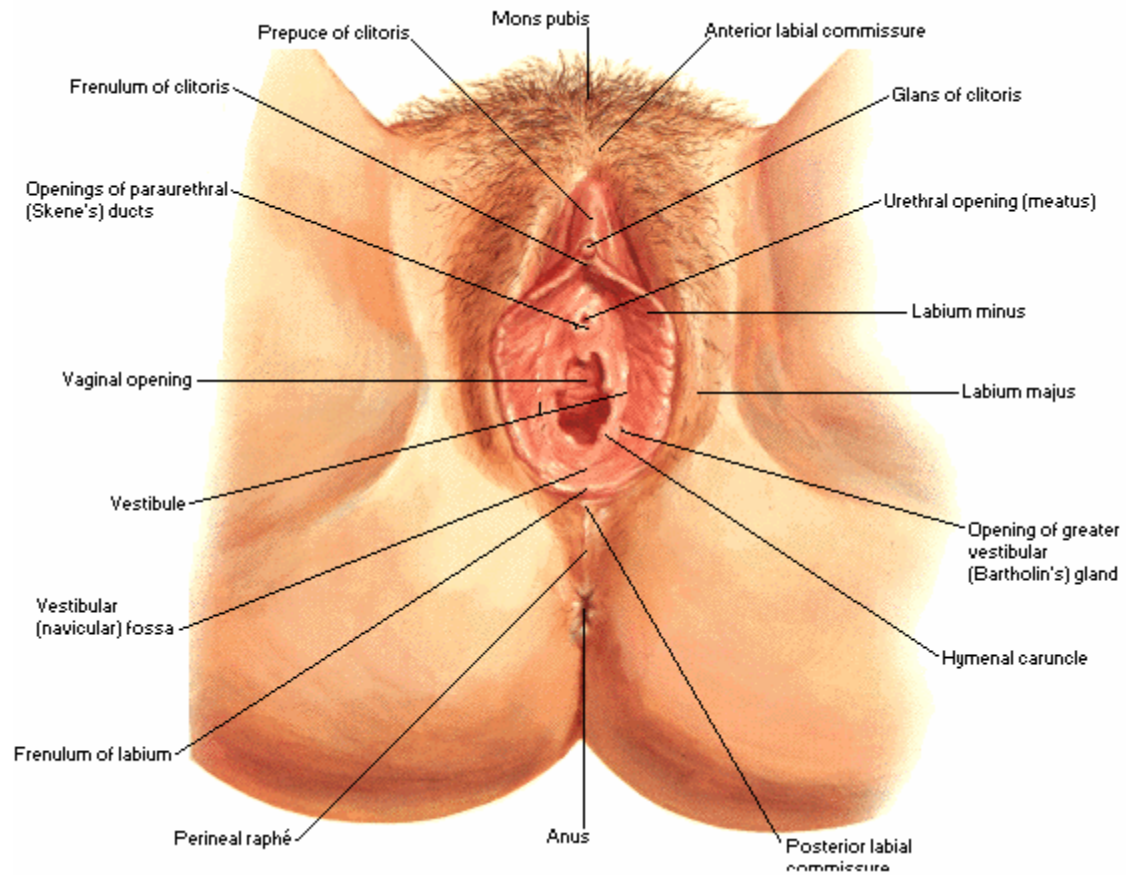
Variations in Position



Histology









Annular hymen



Septate hymen

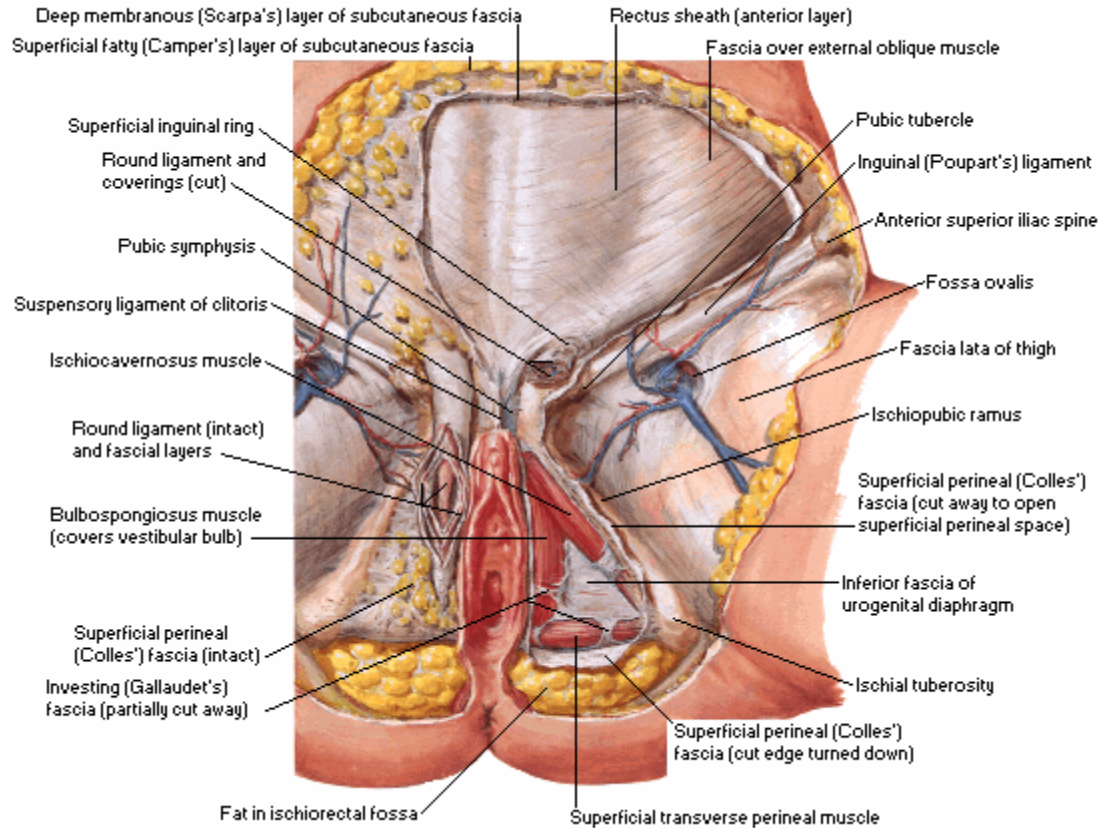


Cribriform hymen

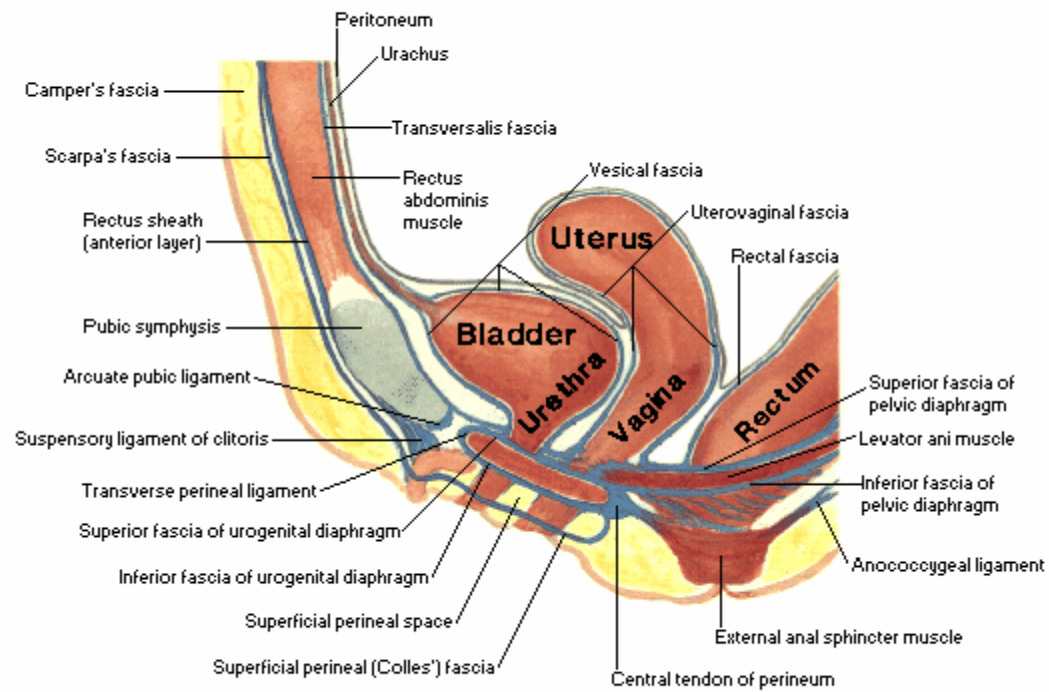


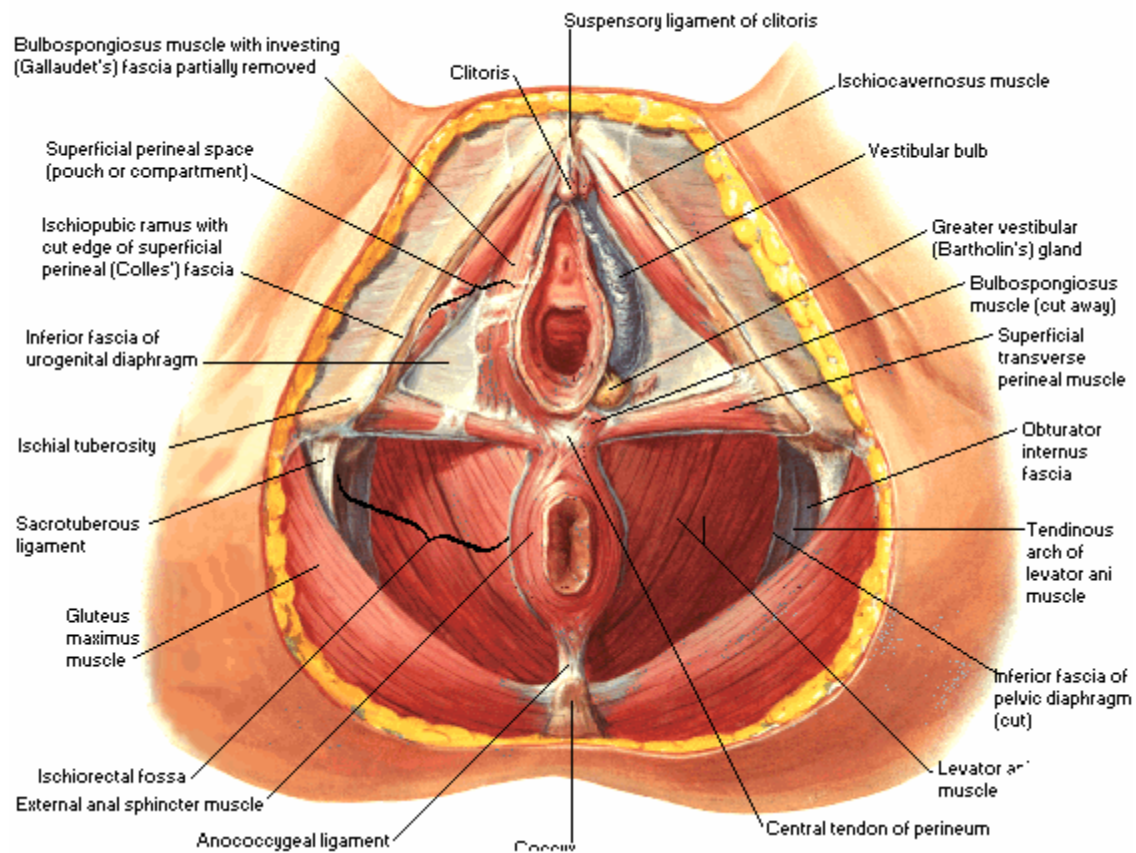
Parous introitus

Superficial Dissection

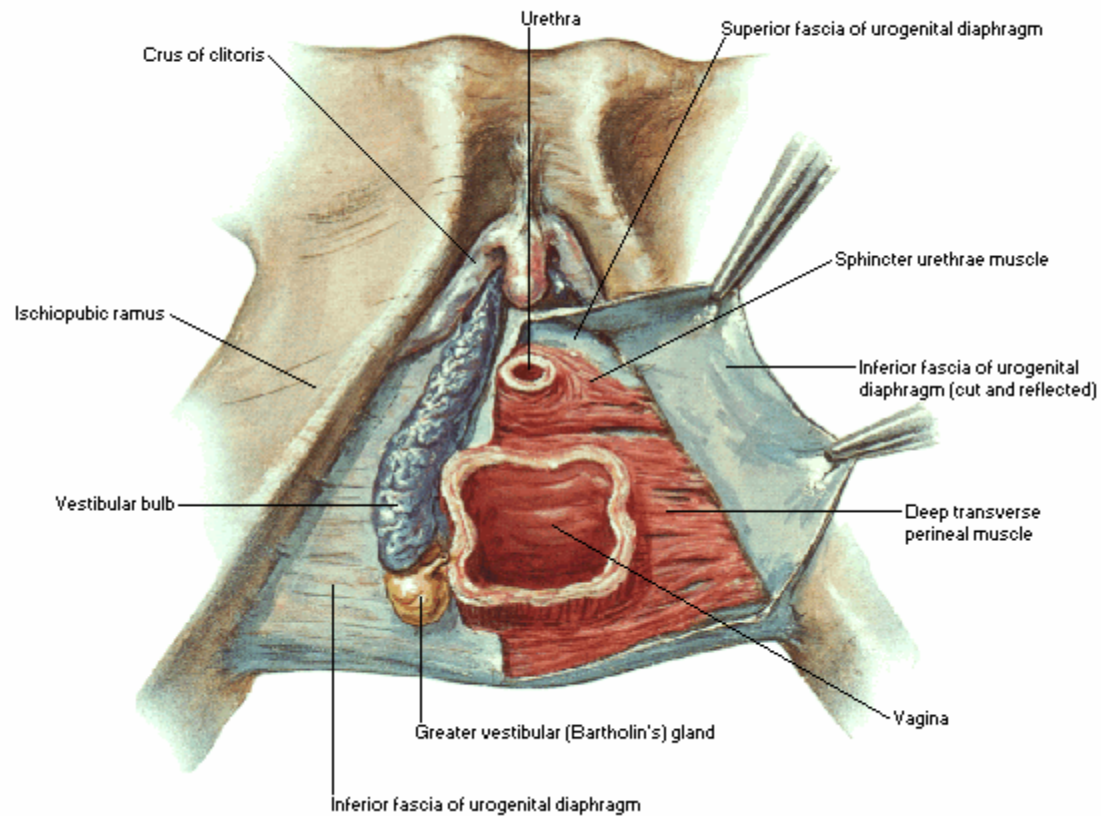


Midsagittal Section

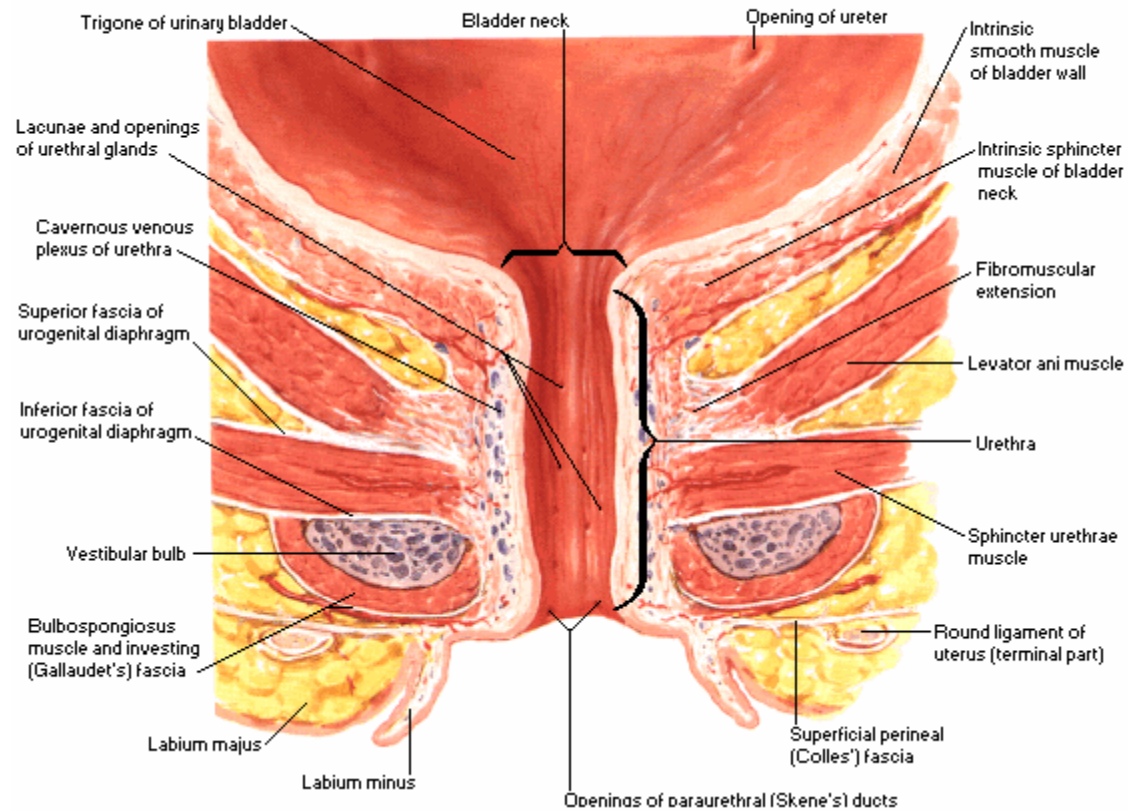




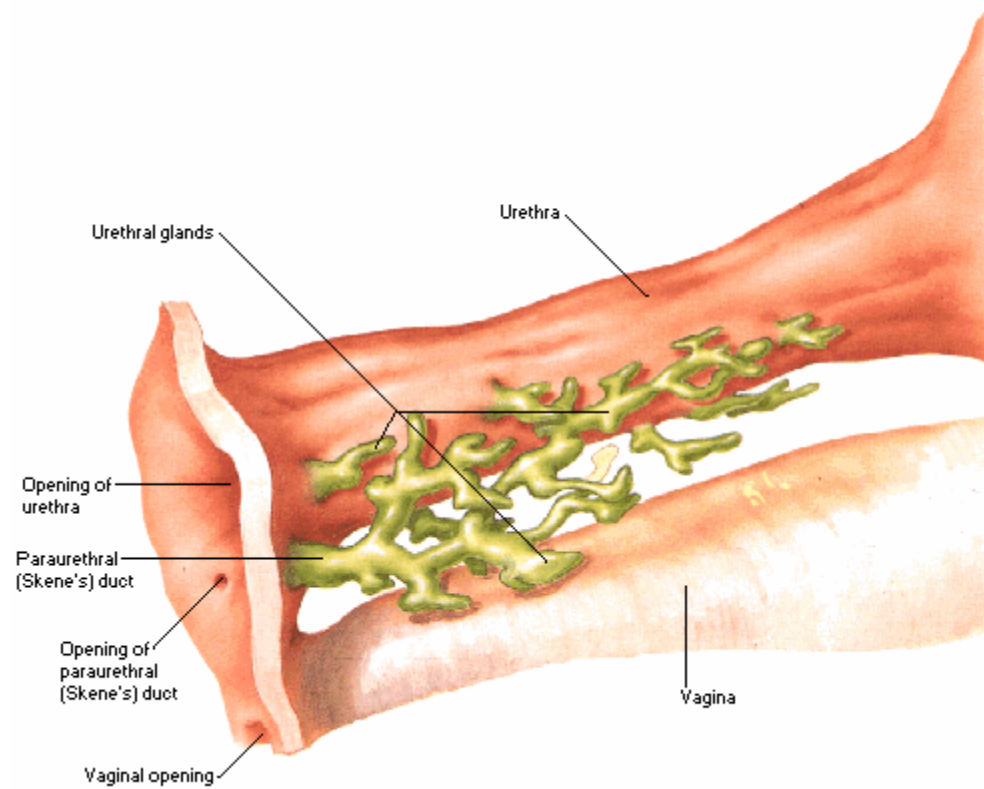
Deep Dissection



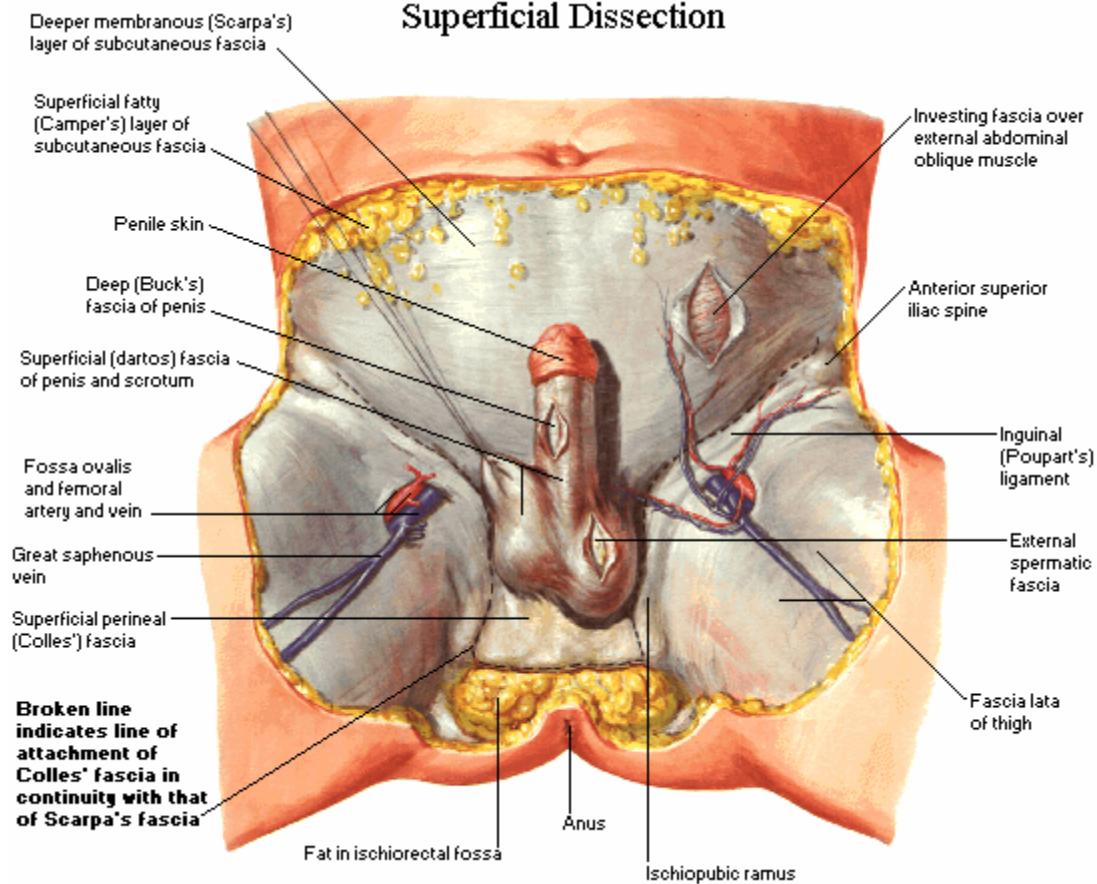
Frontal Section



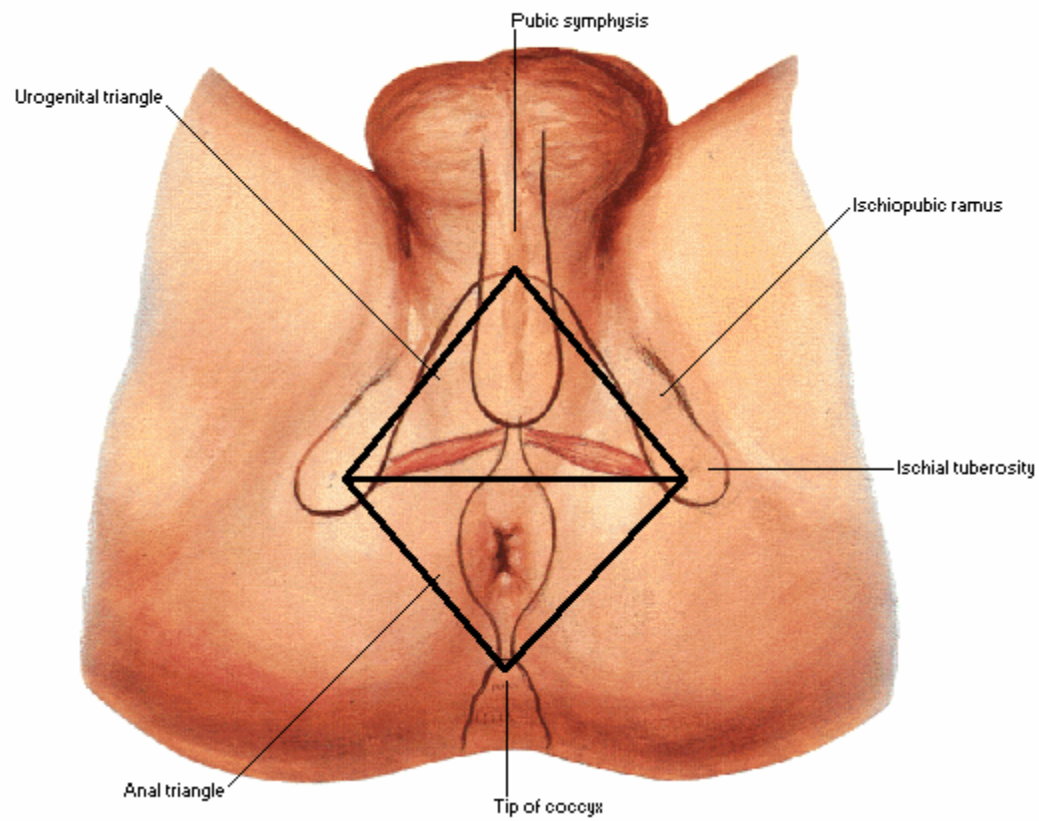
Schematic Reconstruction



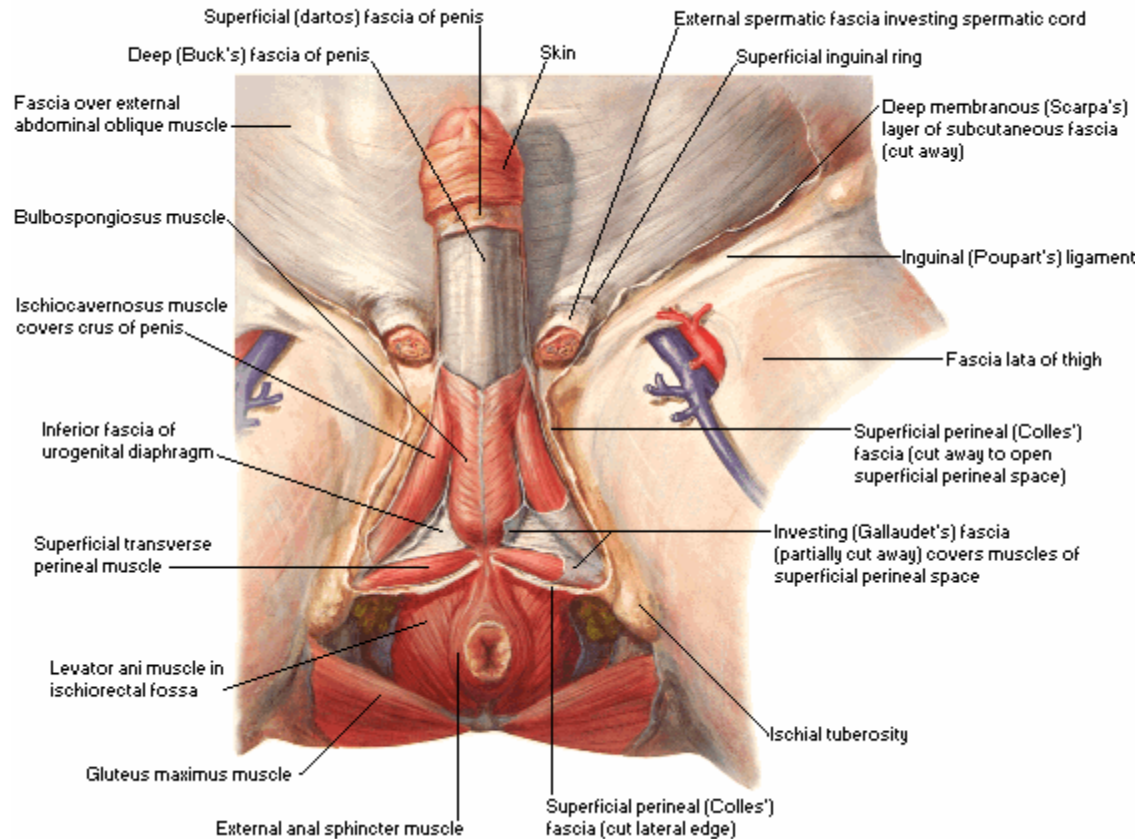
Superficial Dissection

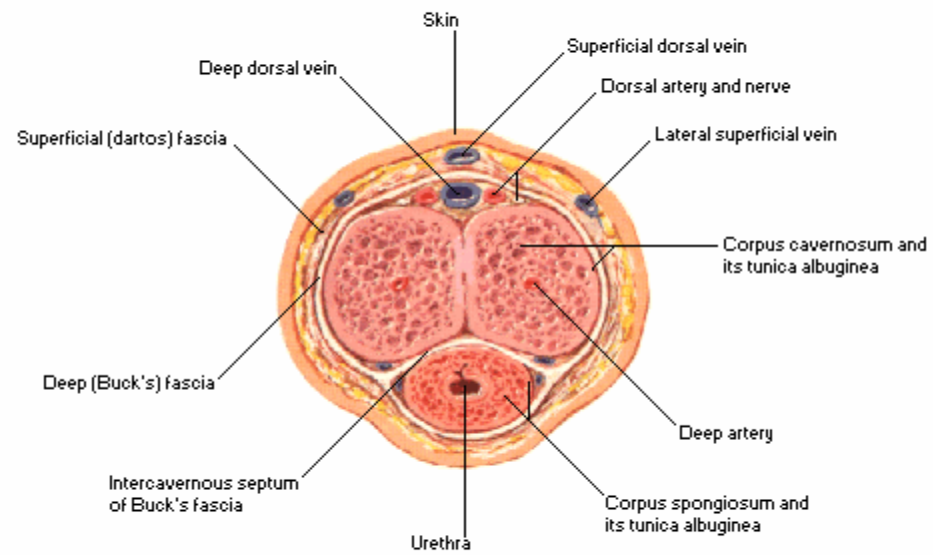


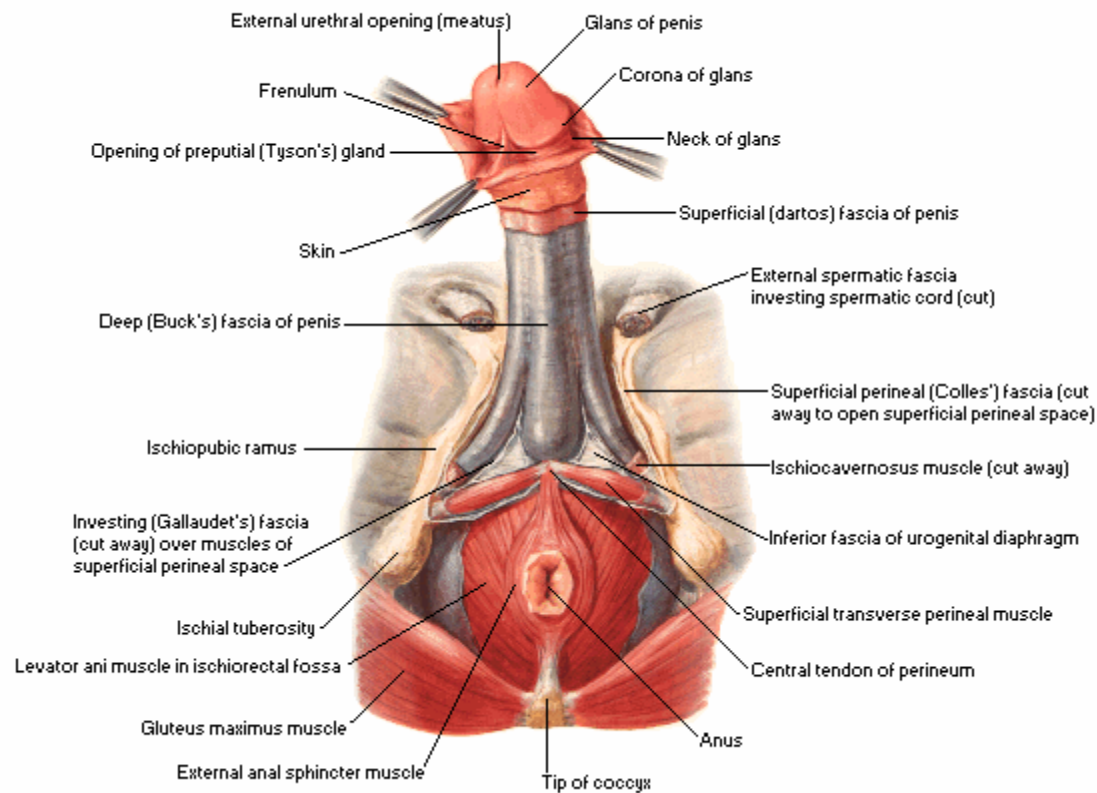
Regions [Triangles] and Surface Topography

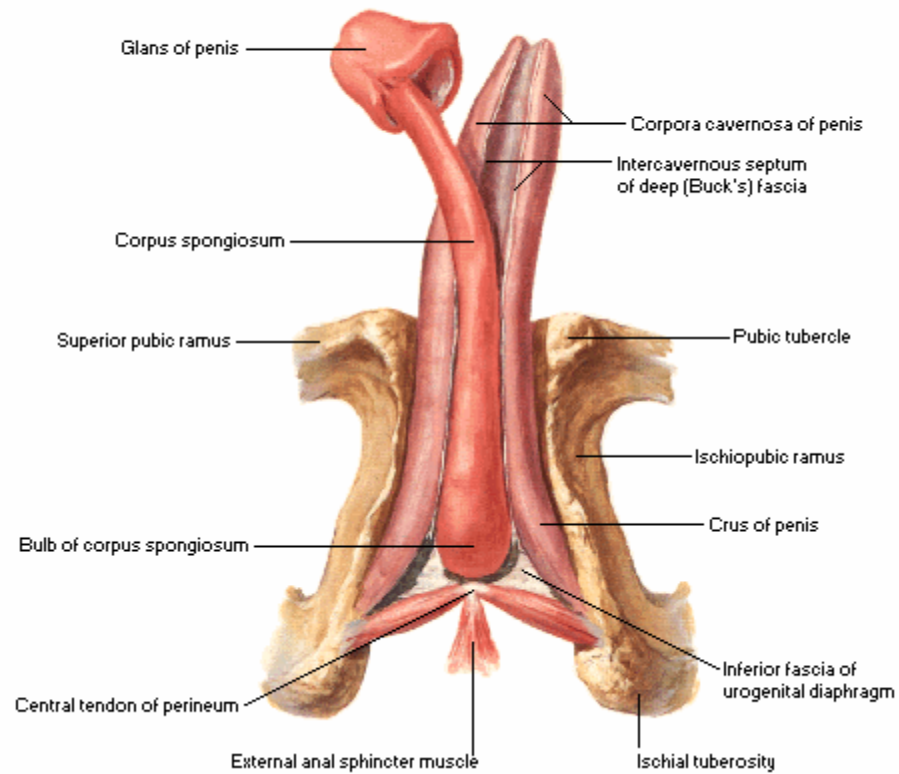


Deep Dissection

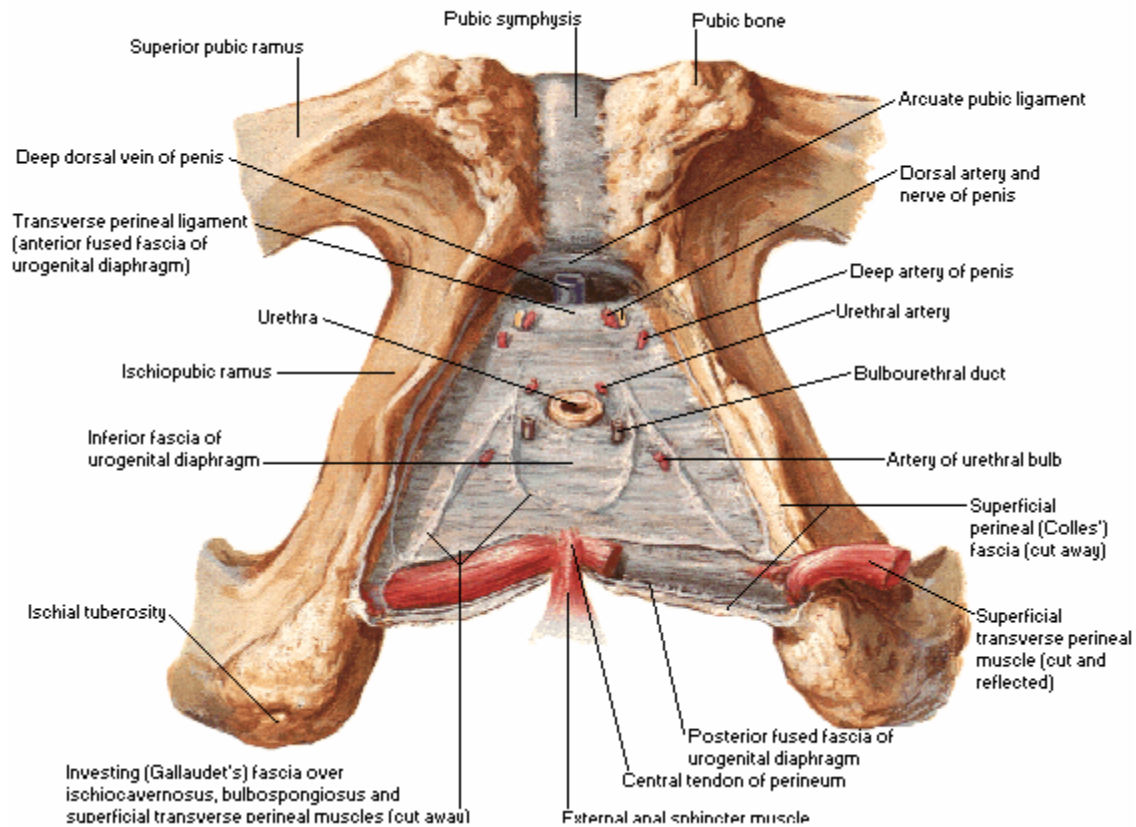




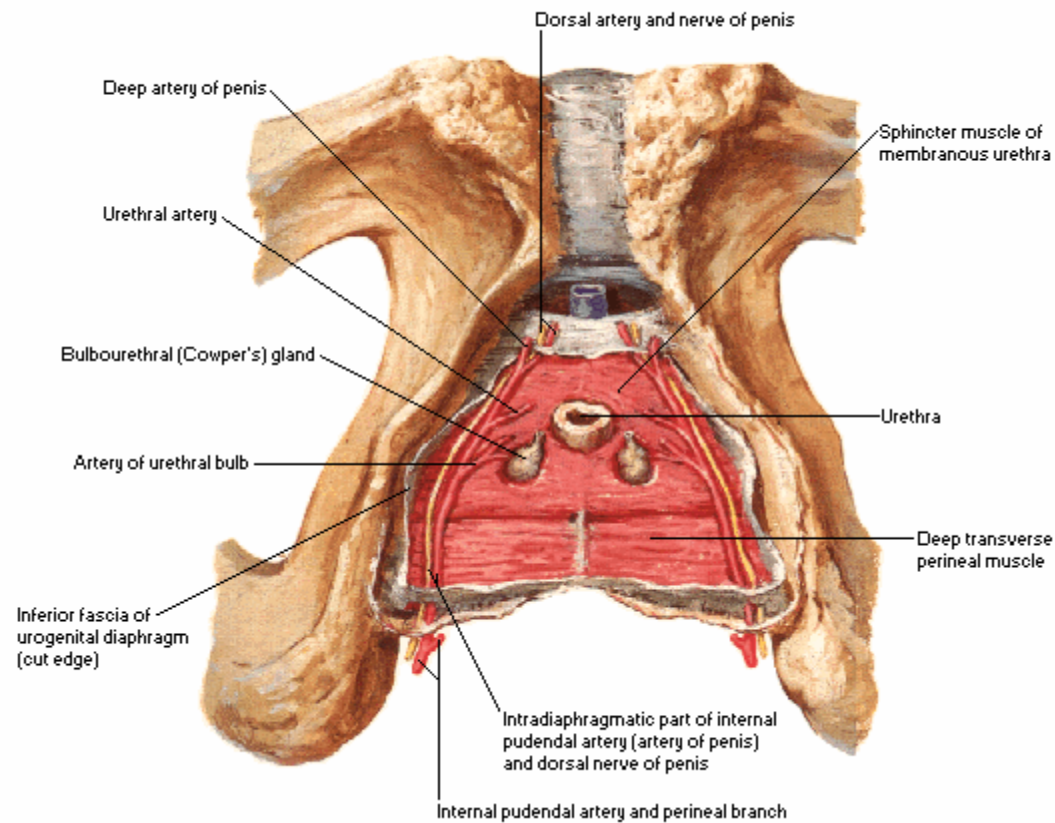




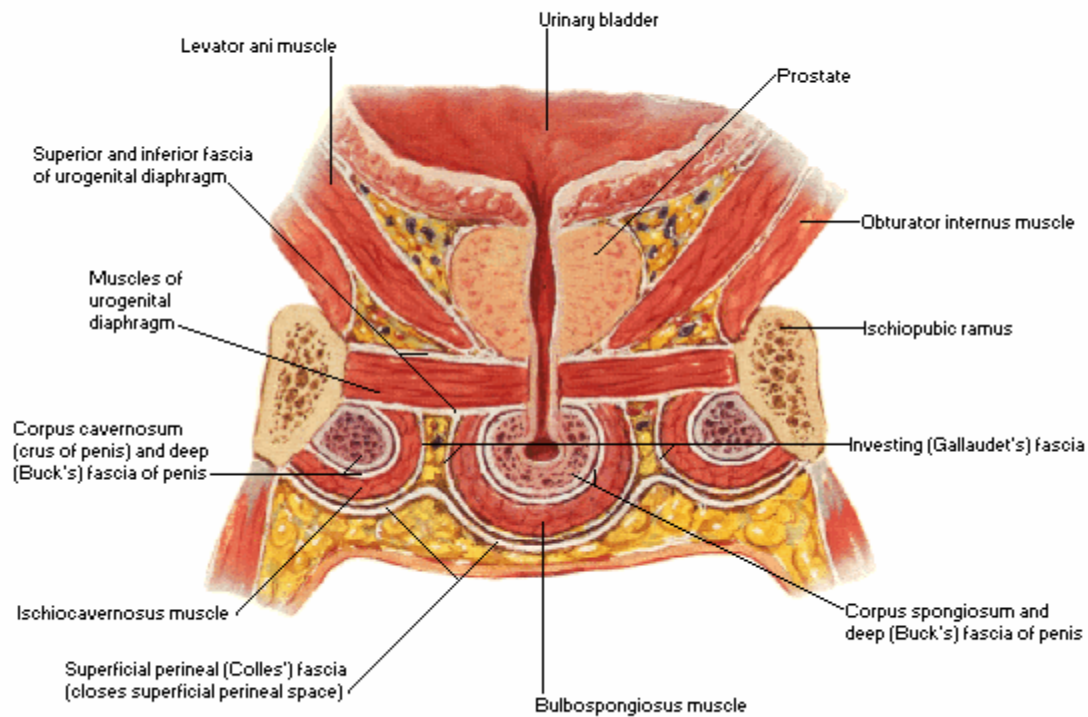
Dissection



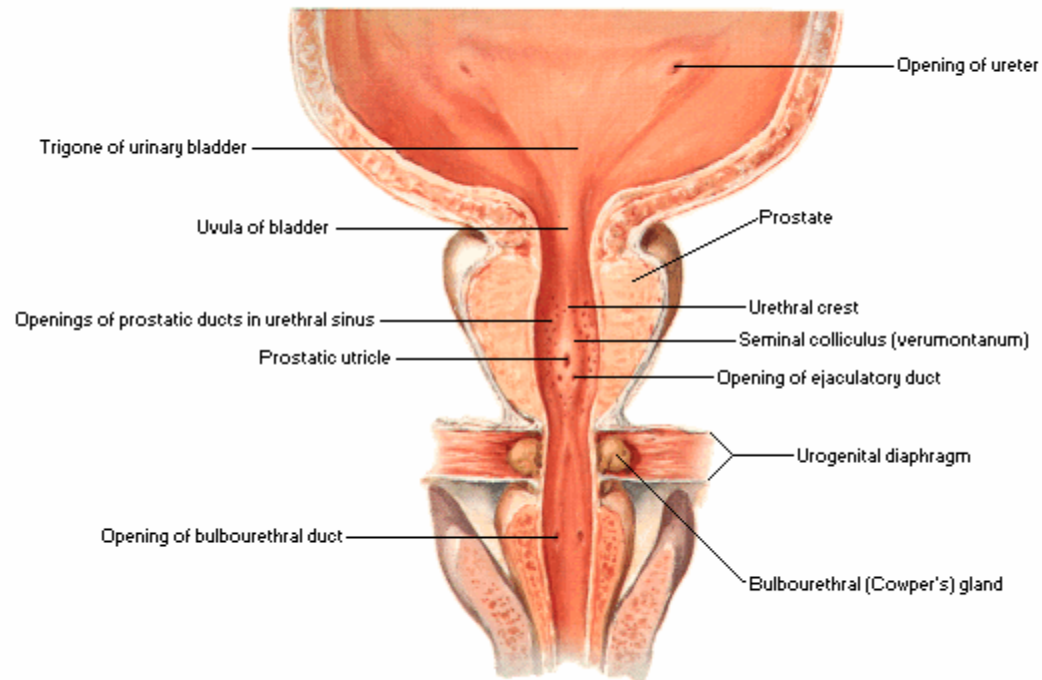
Deep Dissection



Frontal Section - Schema

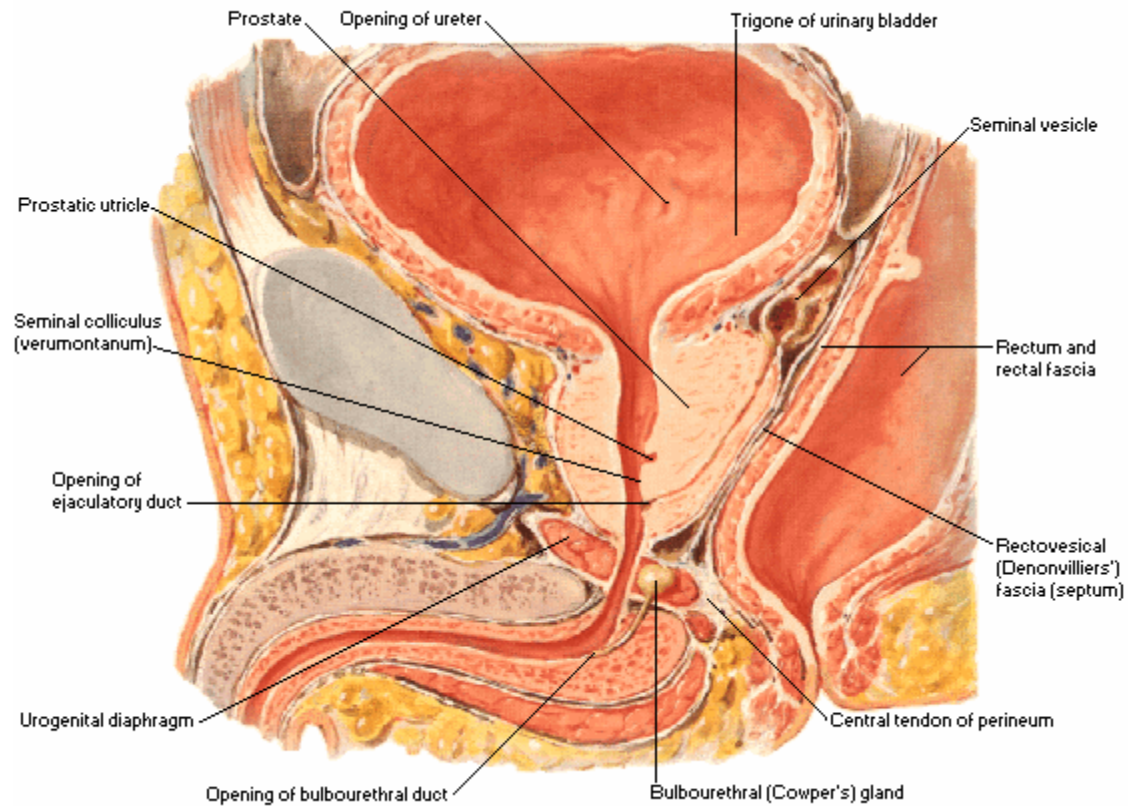


Frontal Section

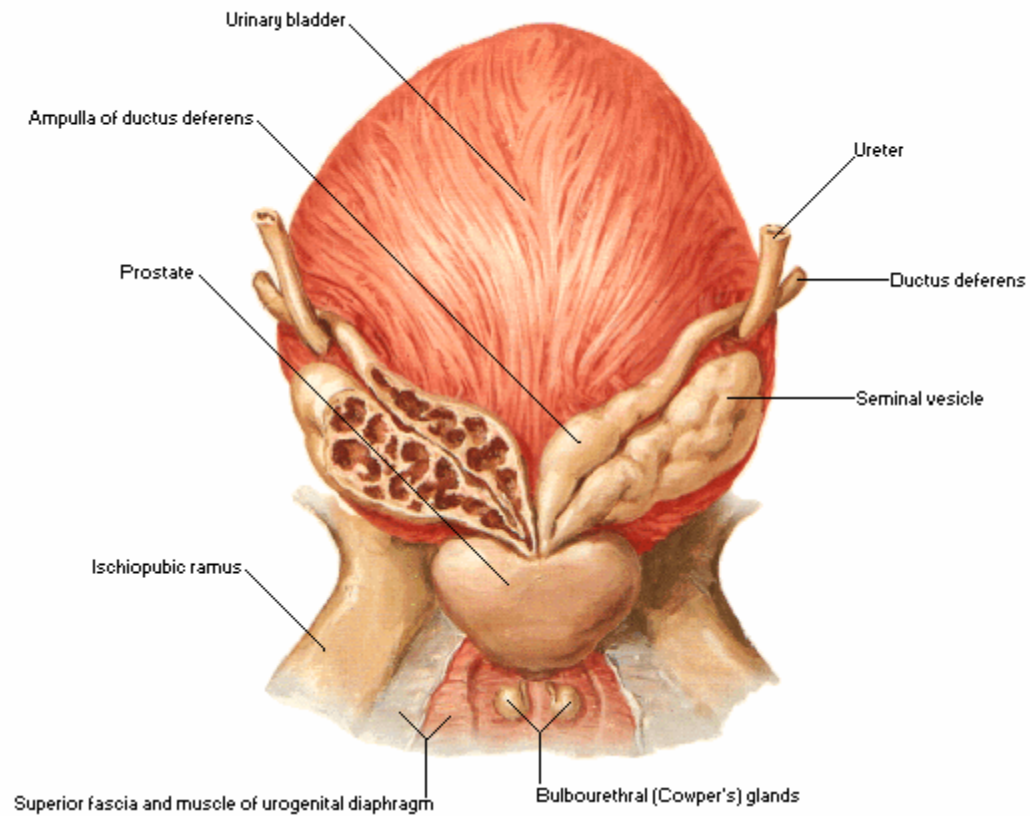


Urethral bulb schematically extended

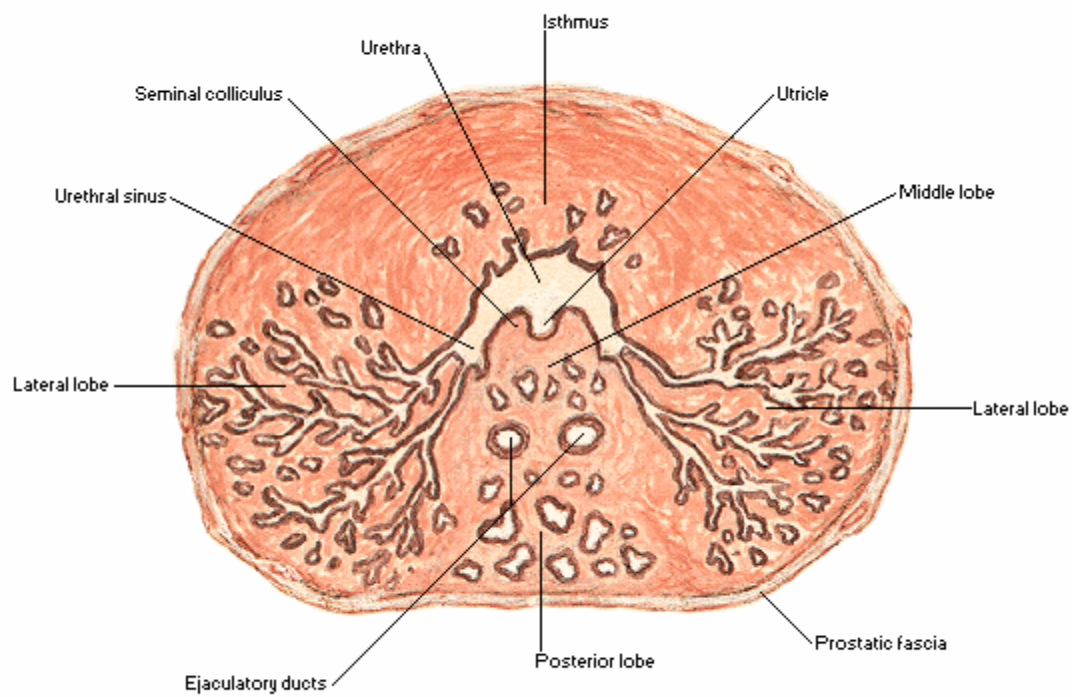
Sagittal Section



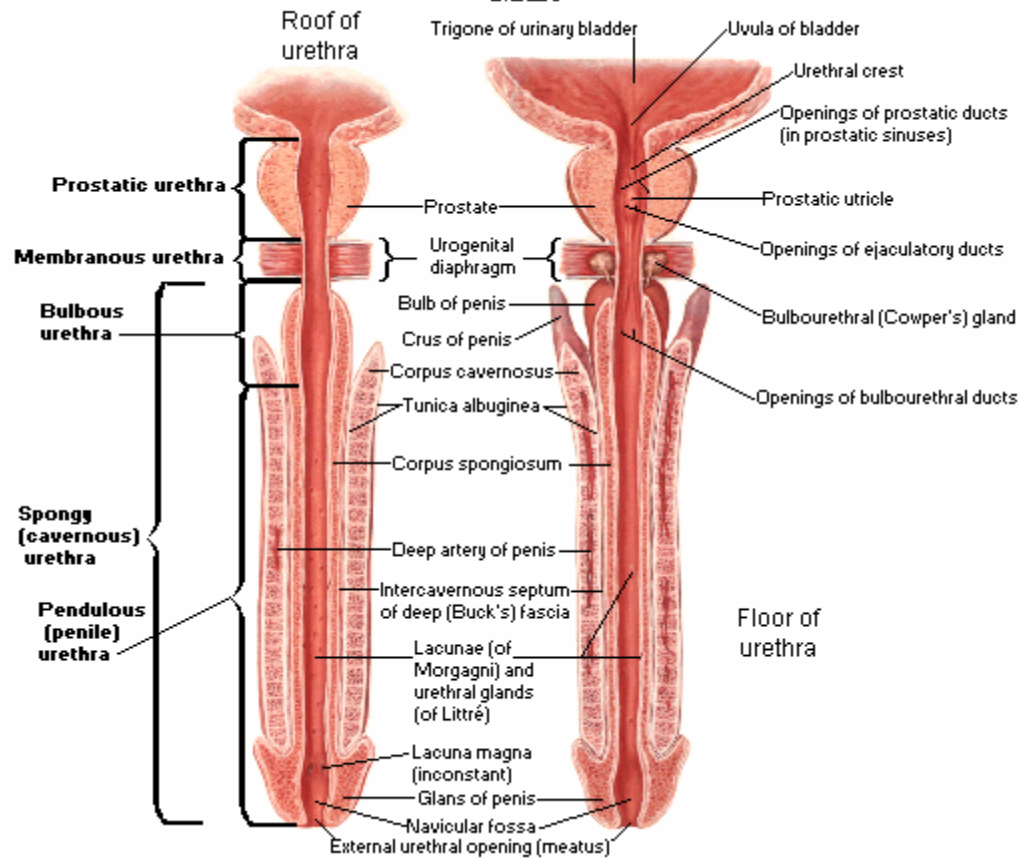
Posterior View



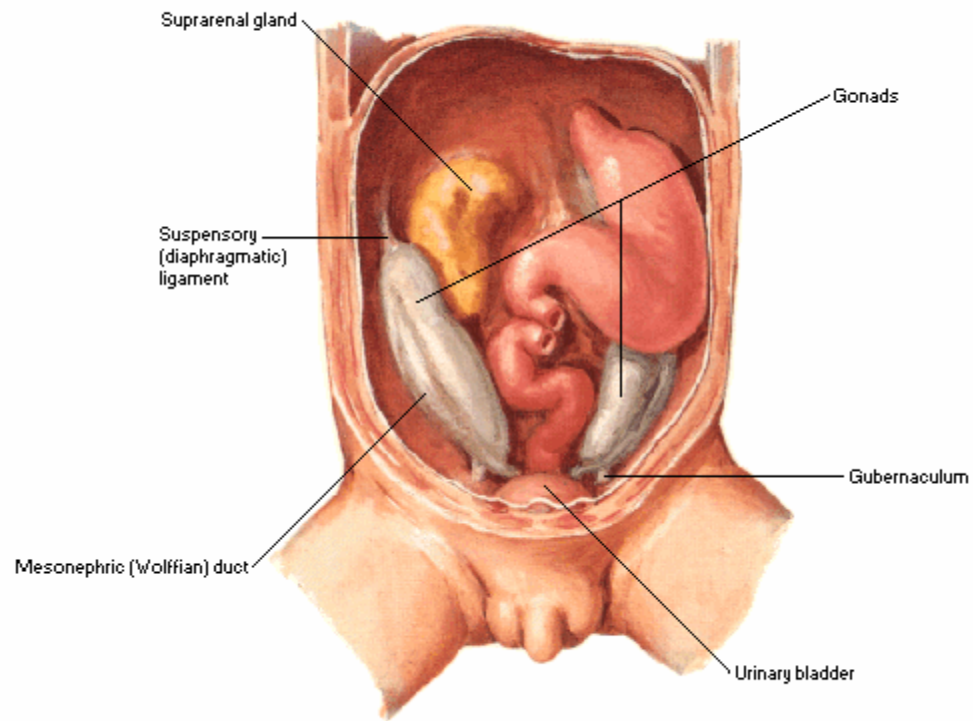
Cross Section through Prostate



Male

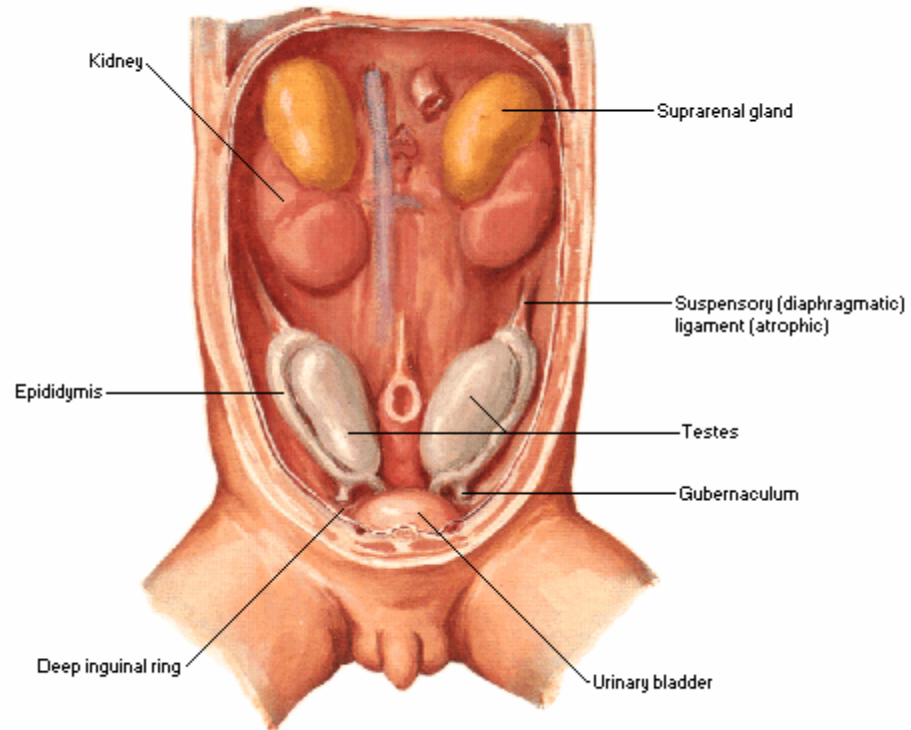


8 Weeks



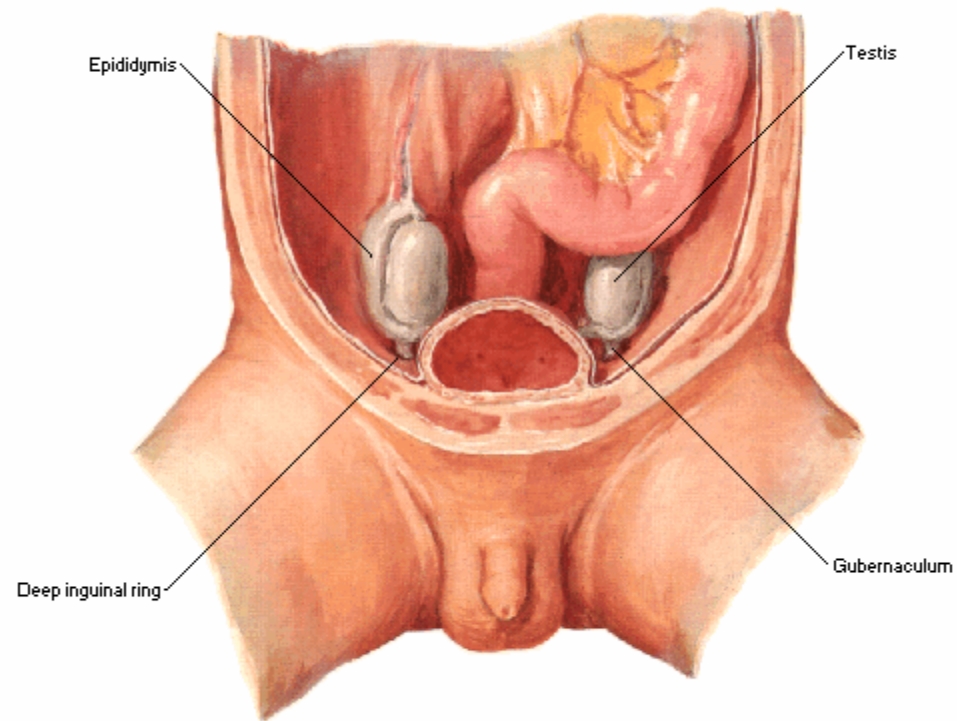
22.5-mm crown rump

11 Weeks



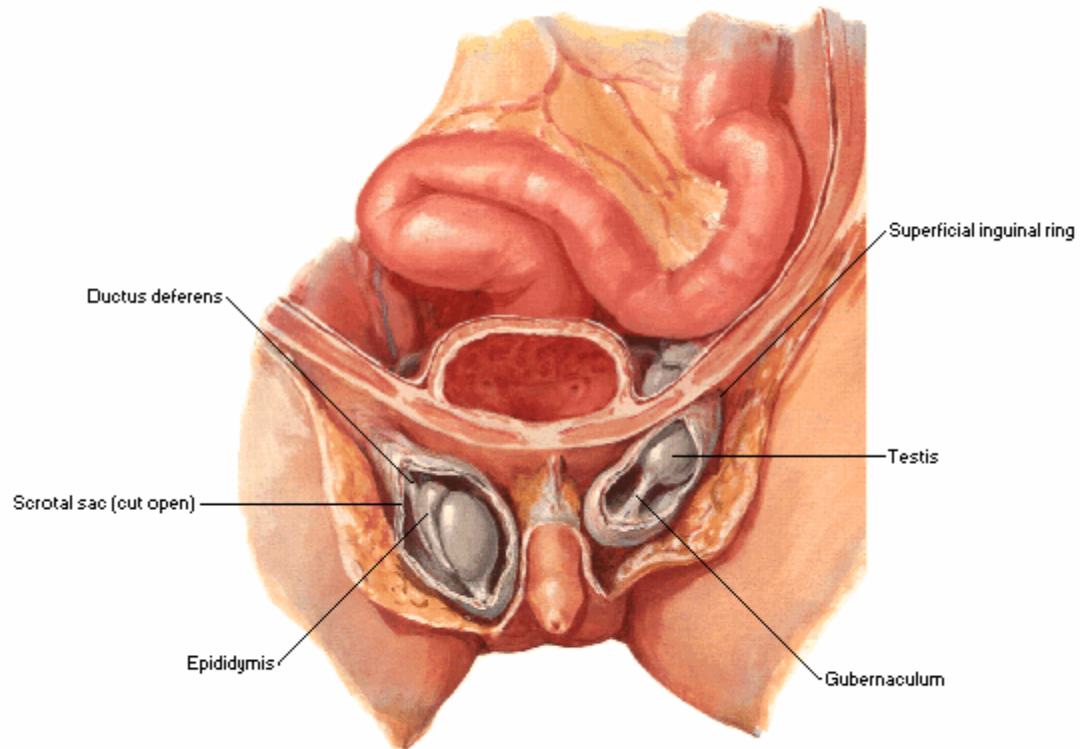
43-mm crown rump

4 Lunar Months



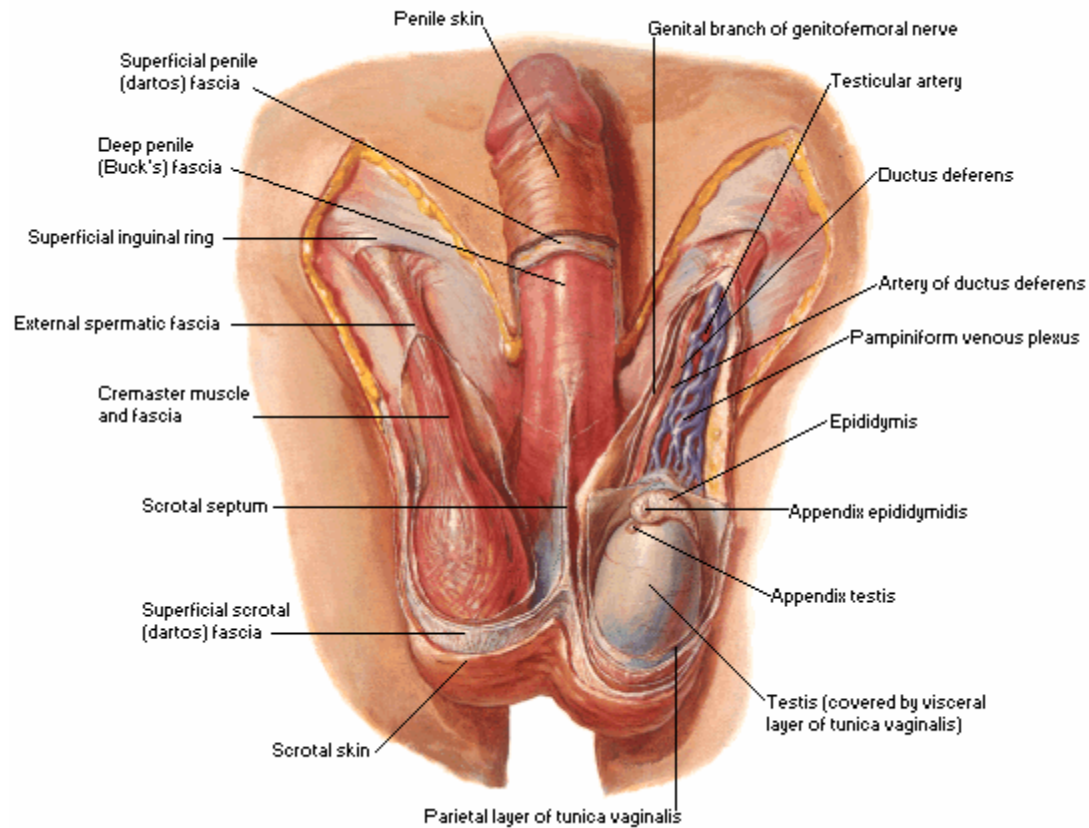
107-mm crown rump

8 Lunar Months

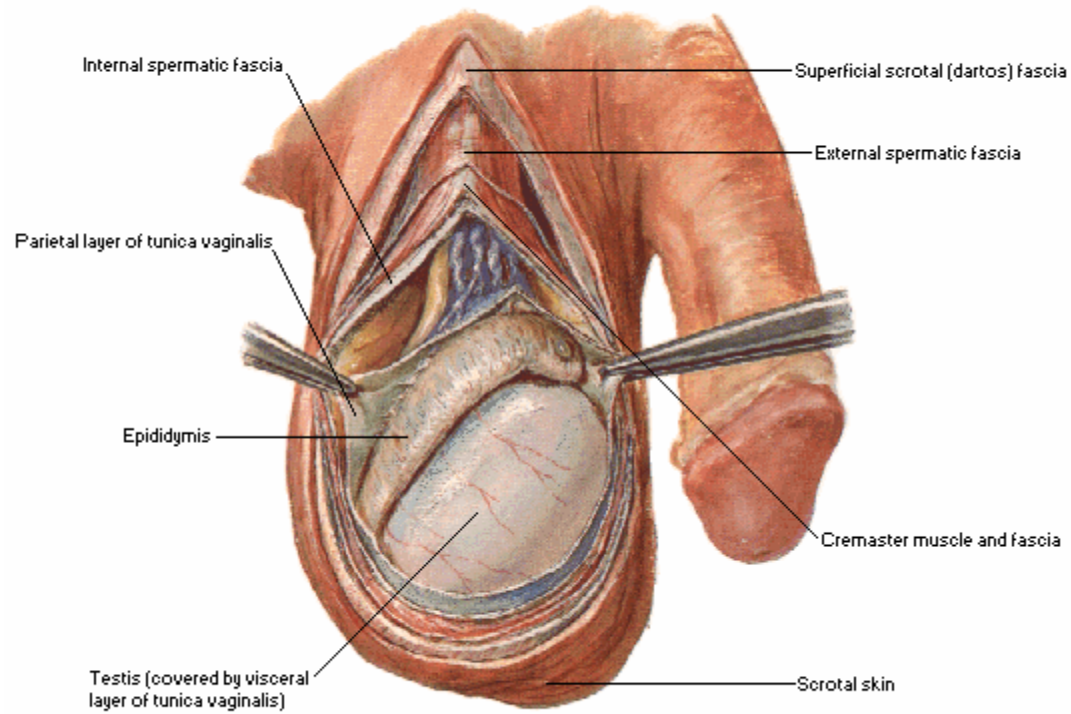


26-cm crown rump

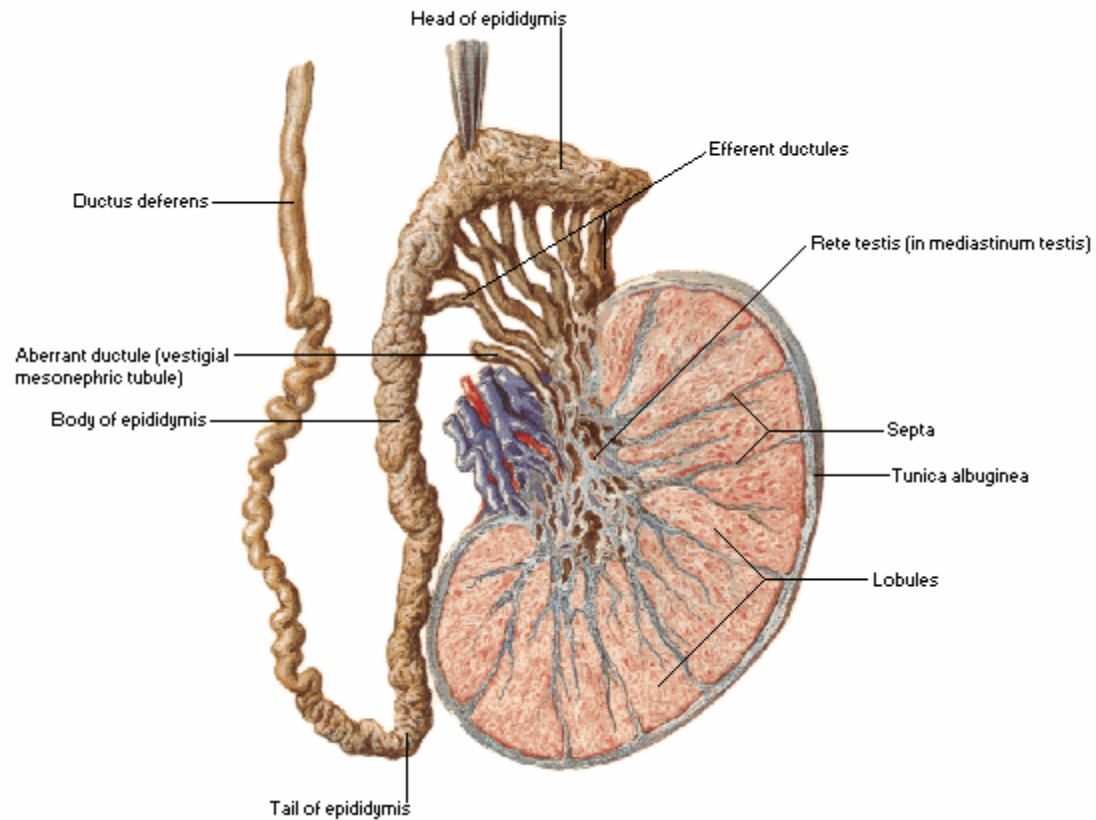
Anterior View



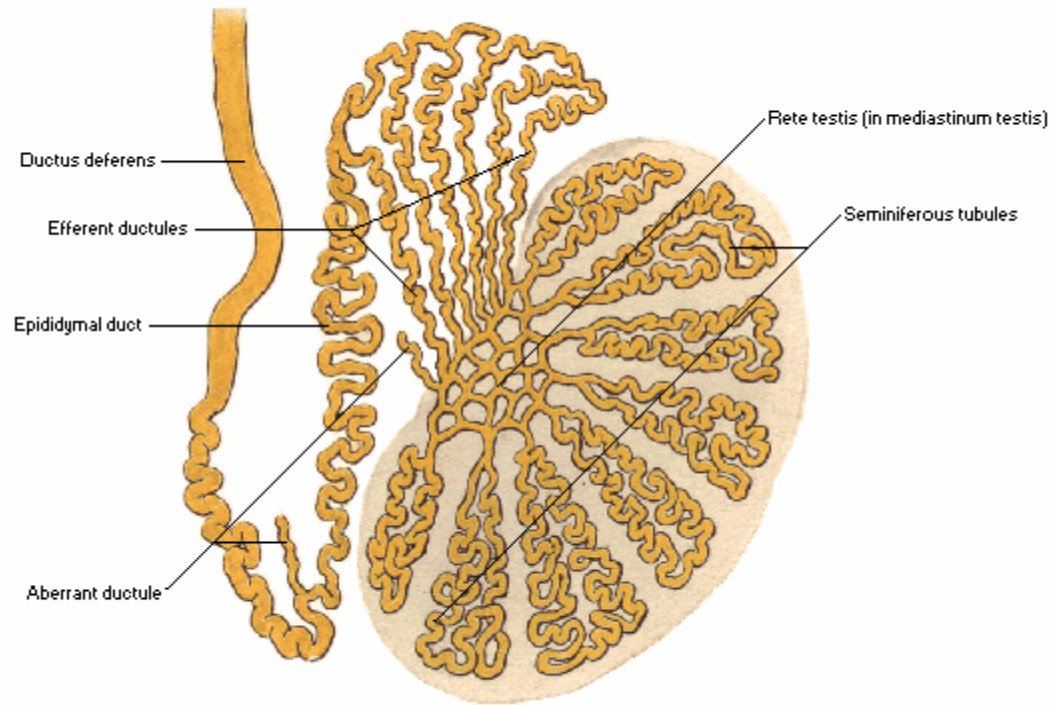
Lateral View



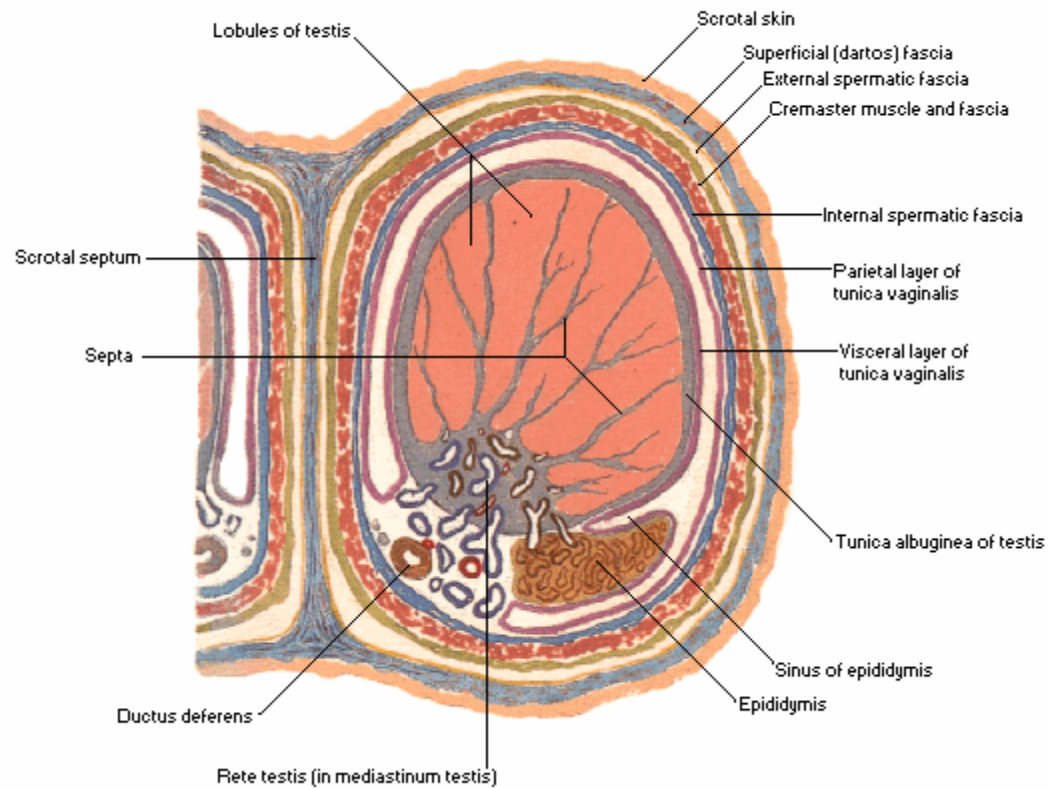
Frontal Section

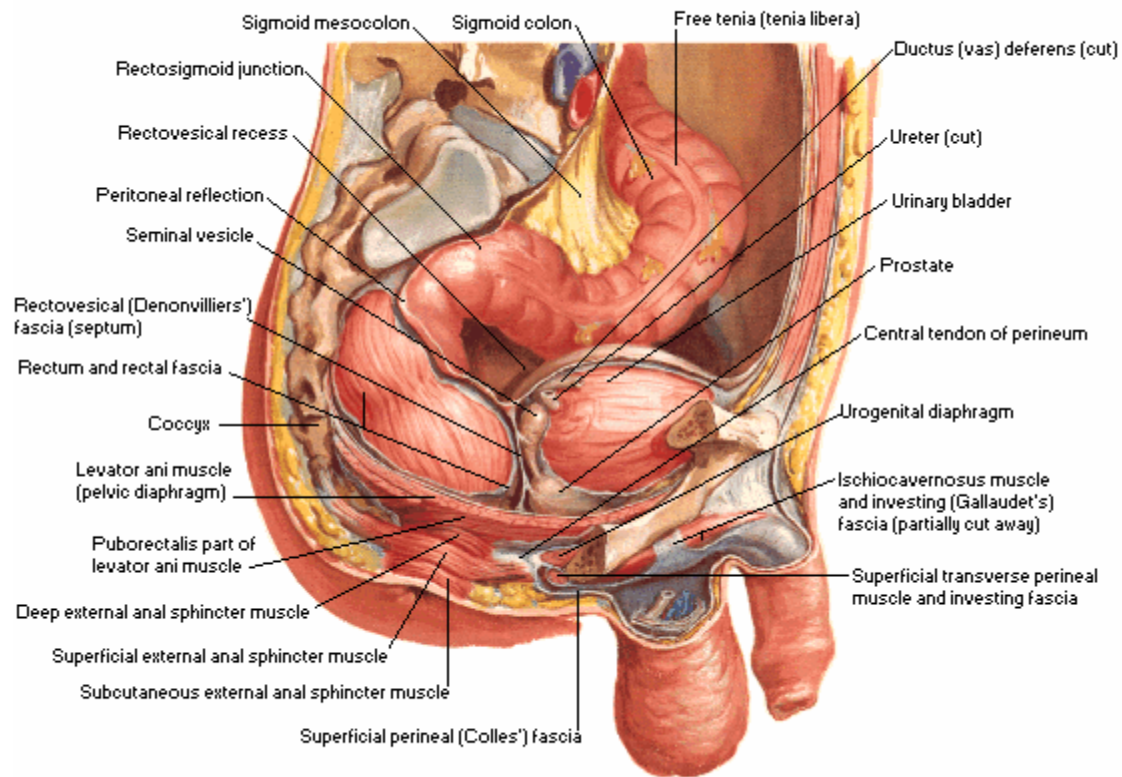


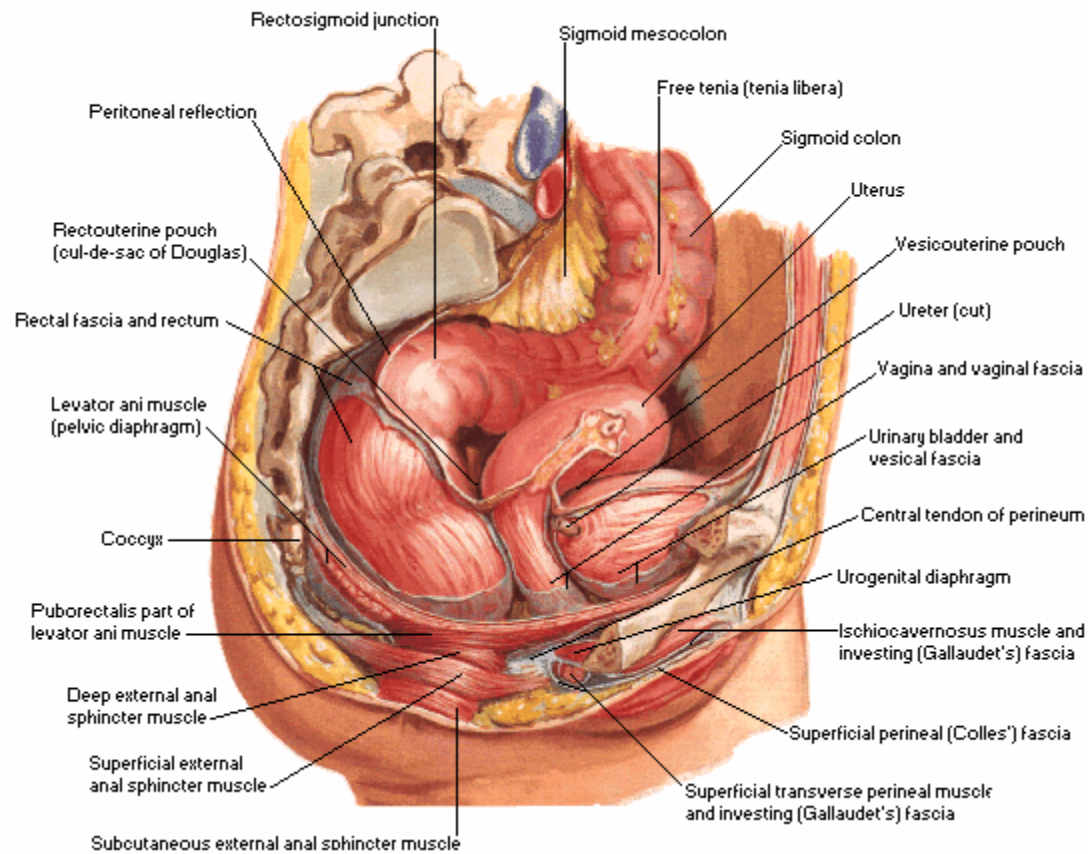
Schema

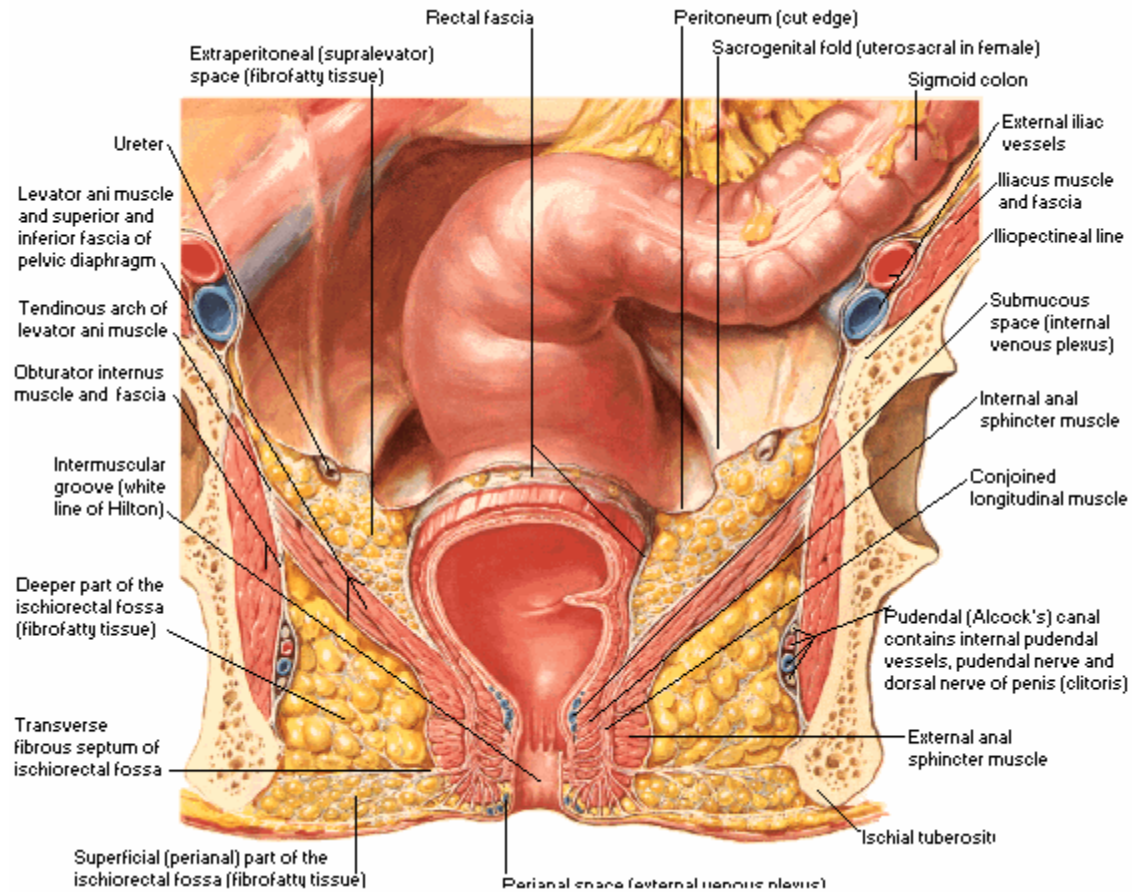


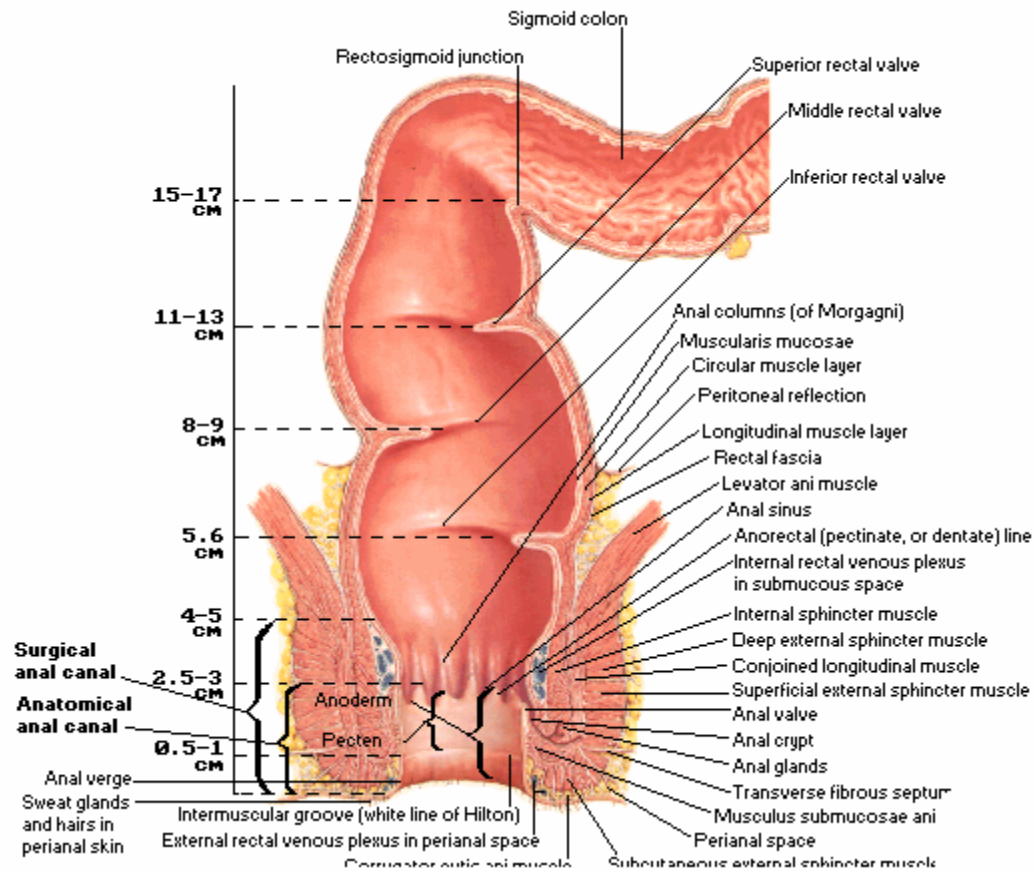
Cross Section



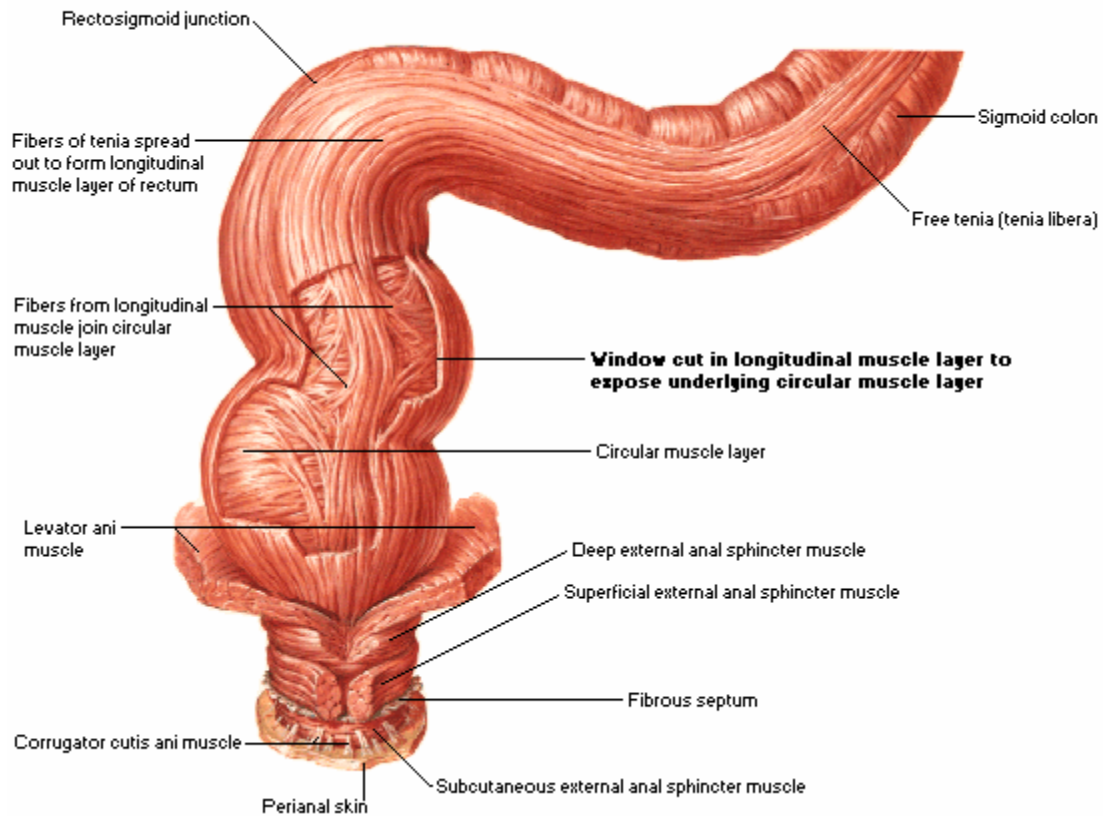




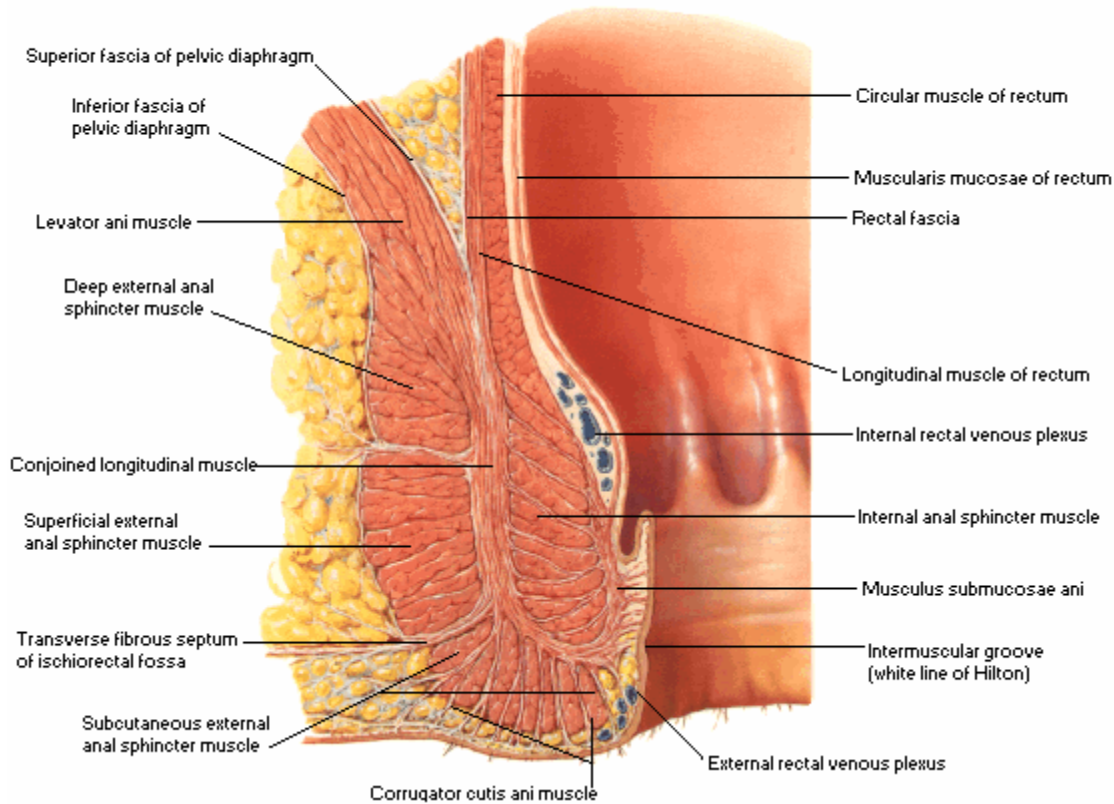




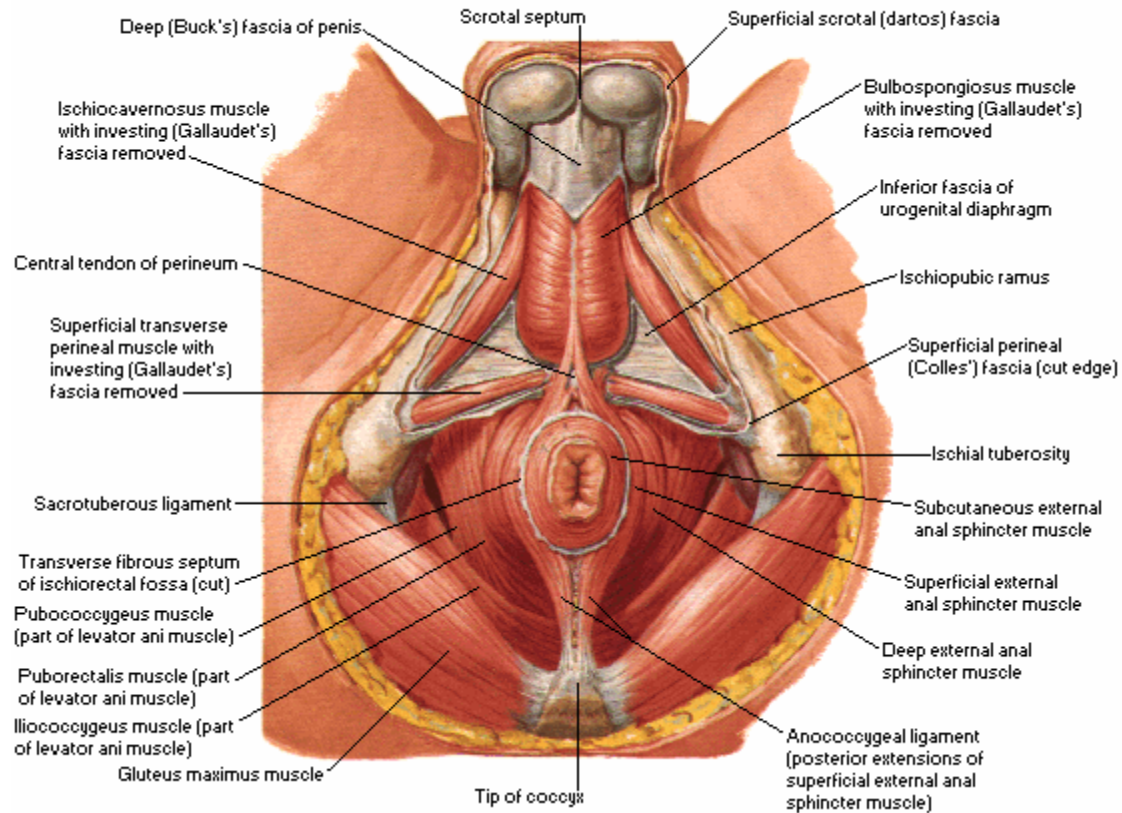
Anterior View



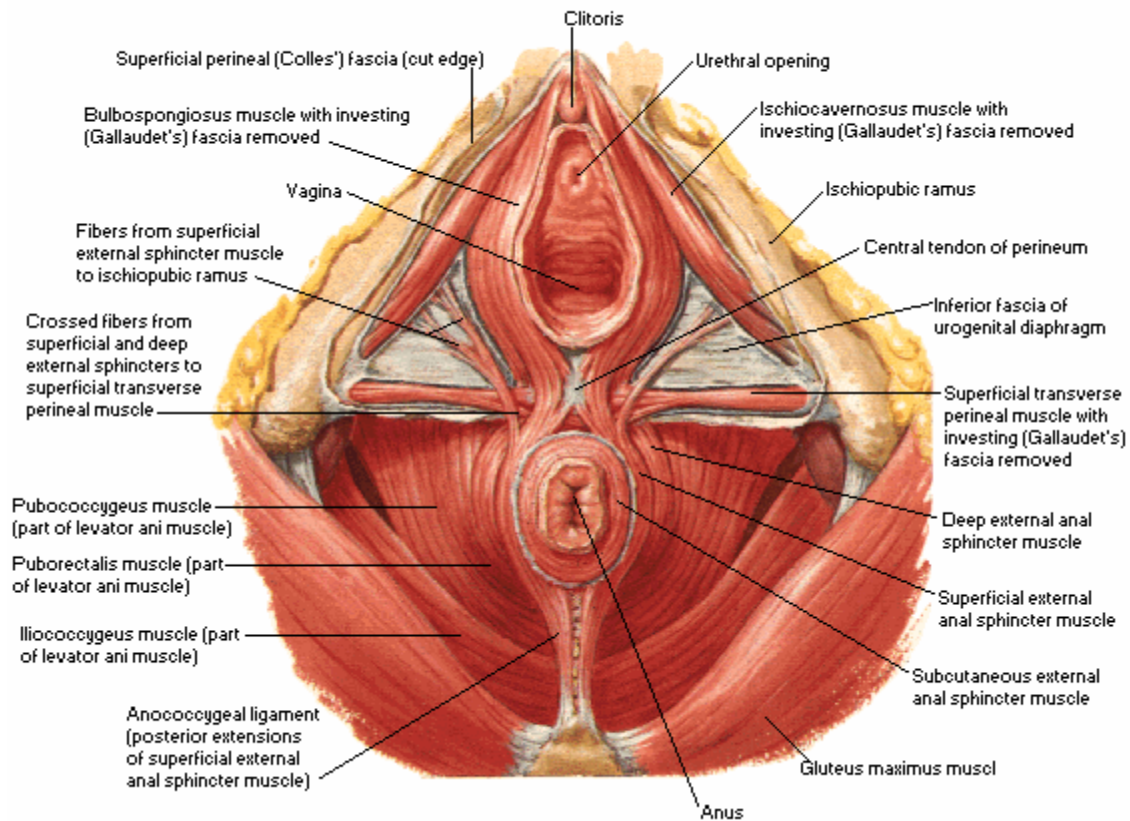
Frontal Section



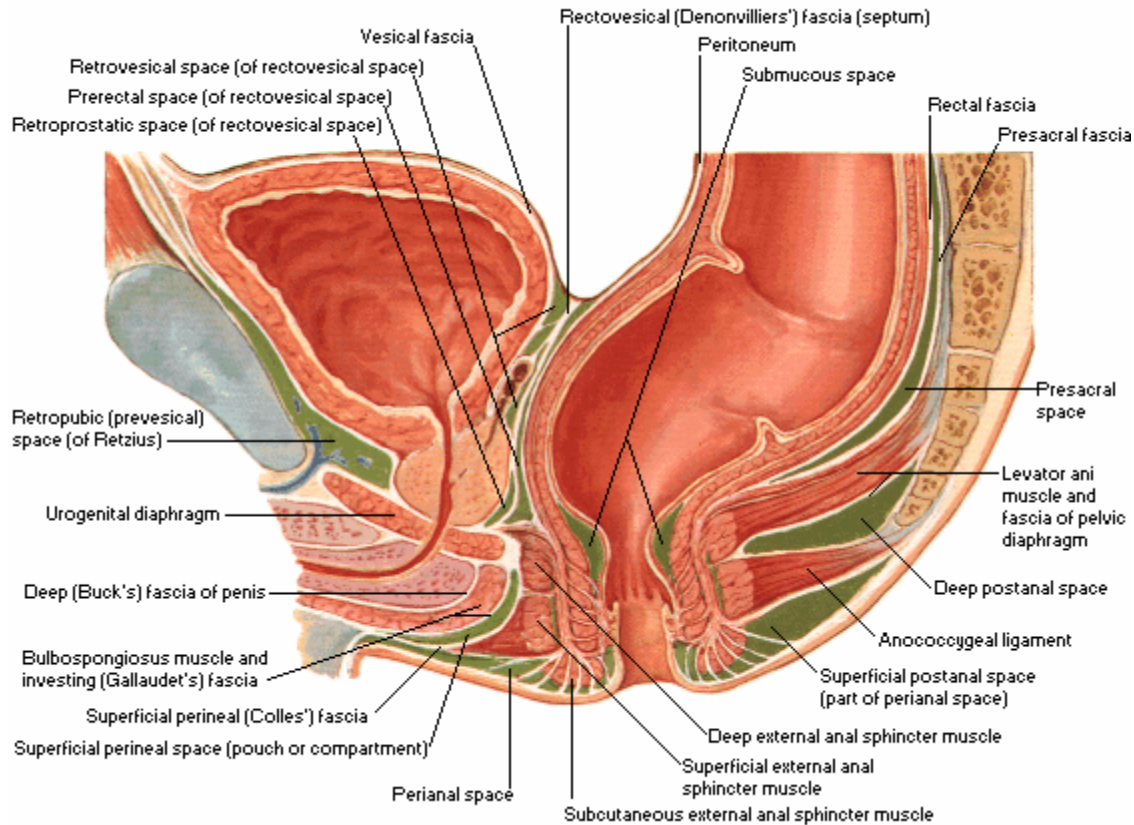
Perineal View



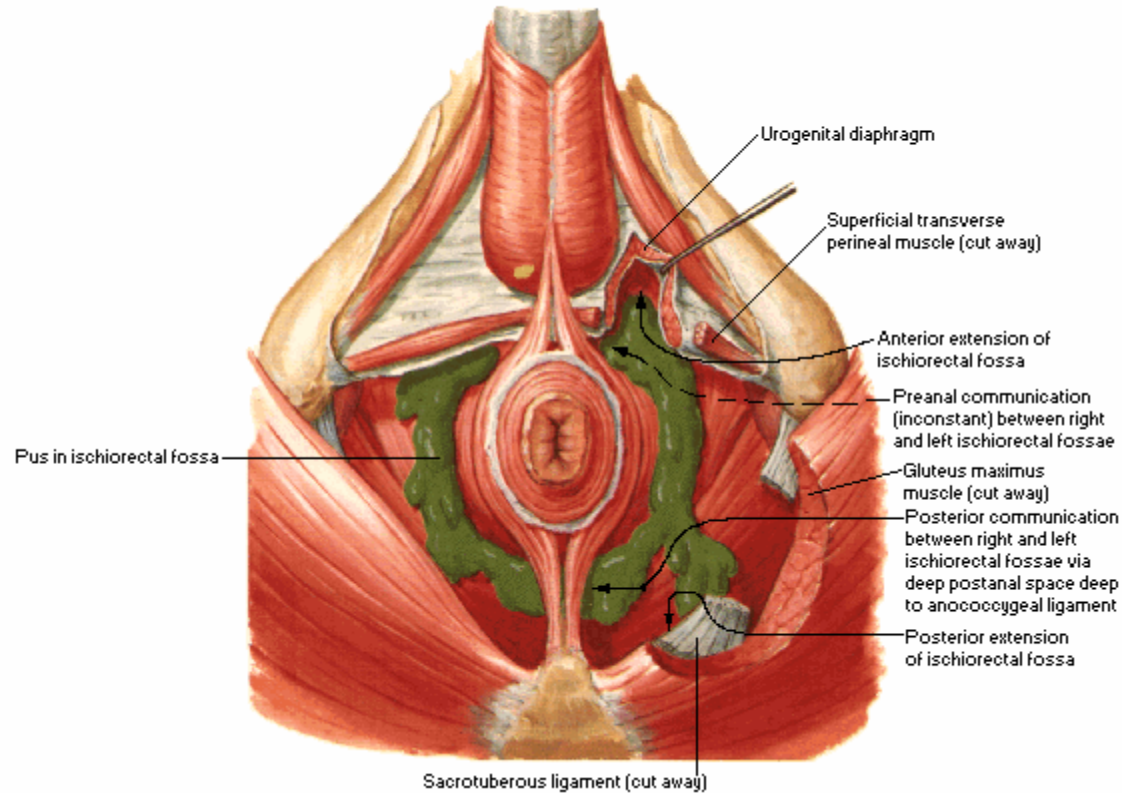
Perineal View

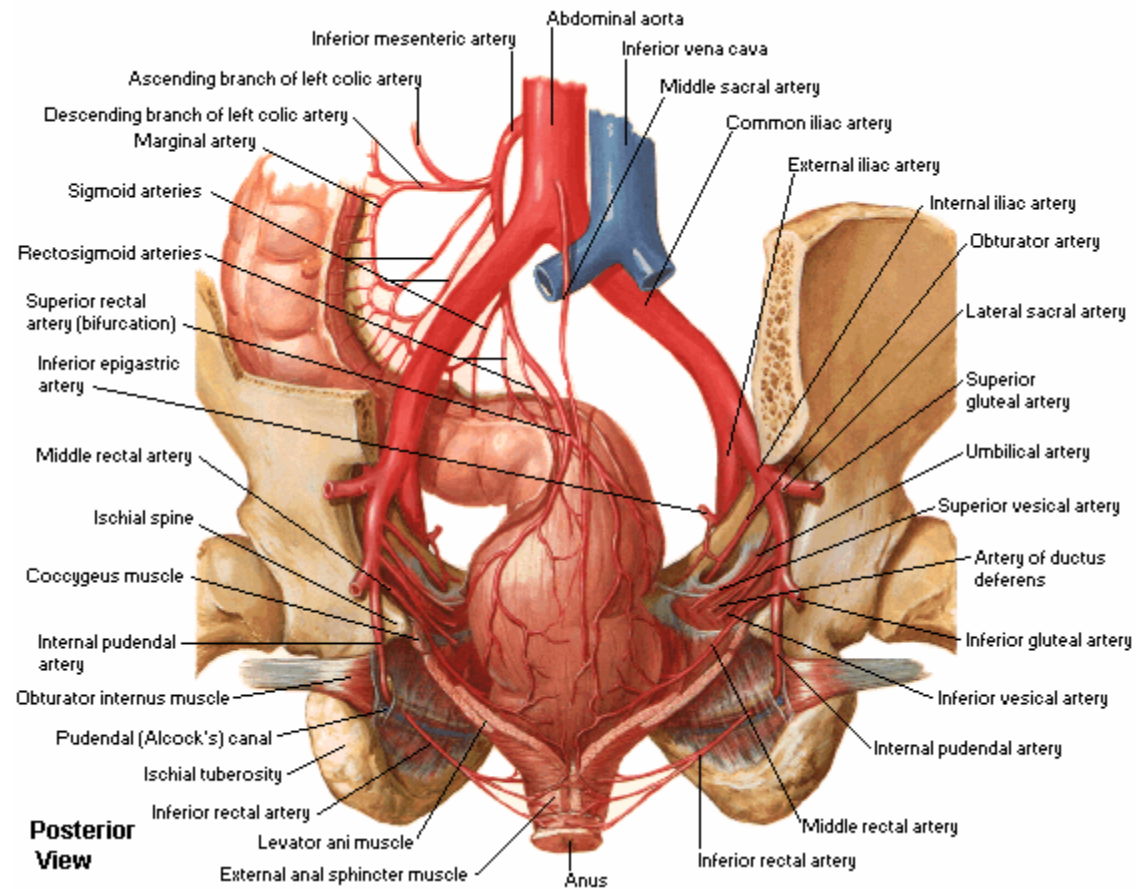


Sagittal Section

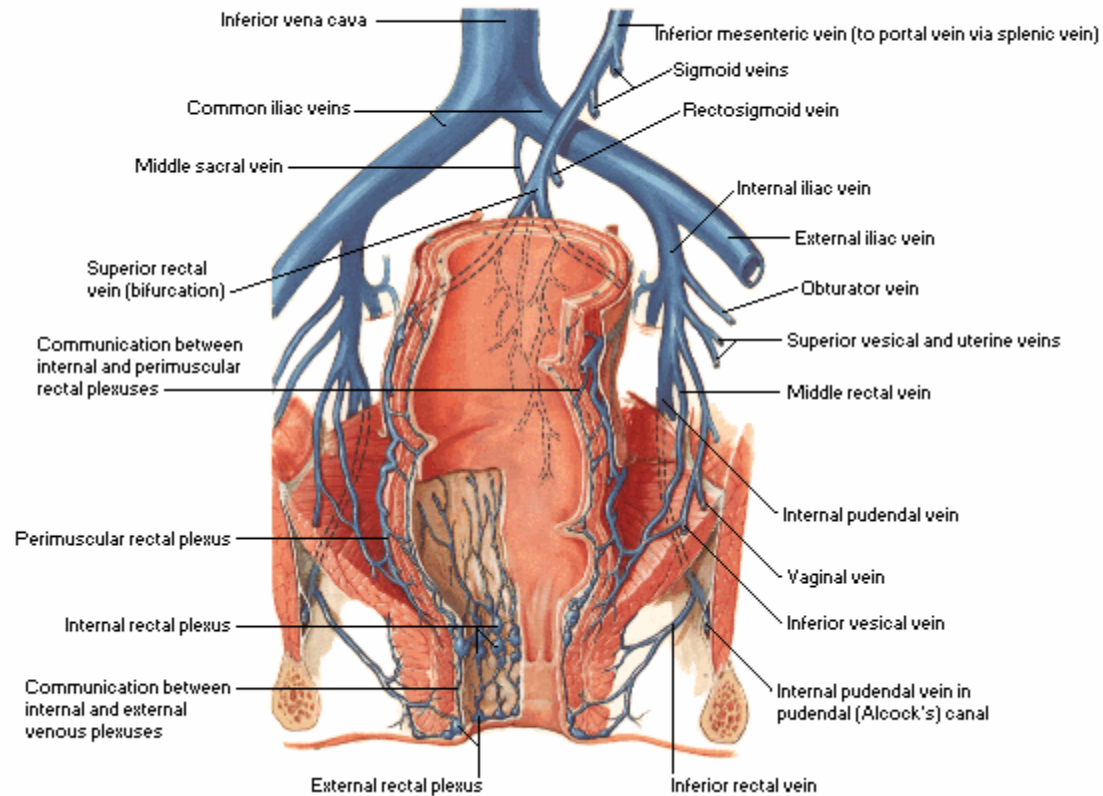


Perineal View



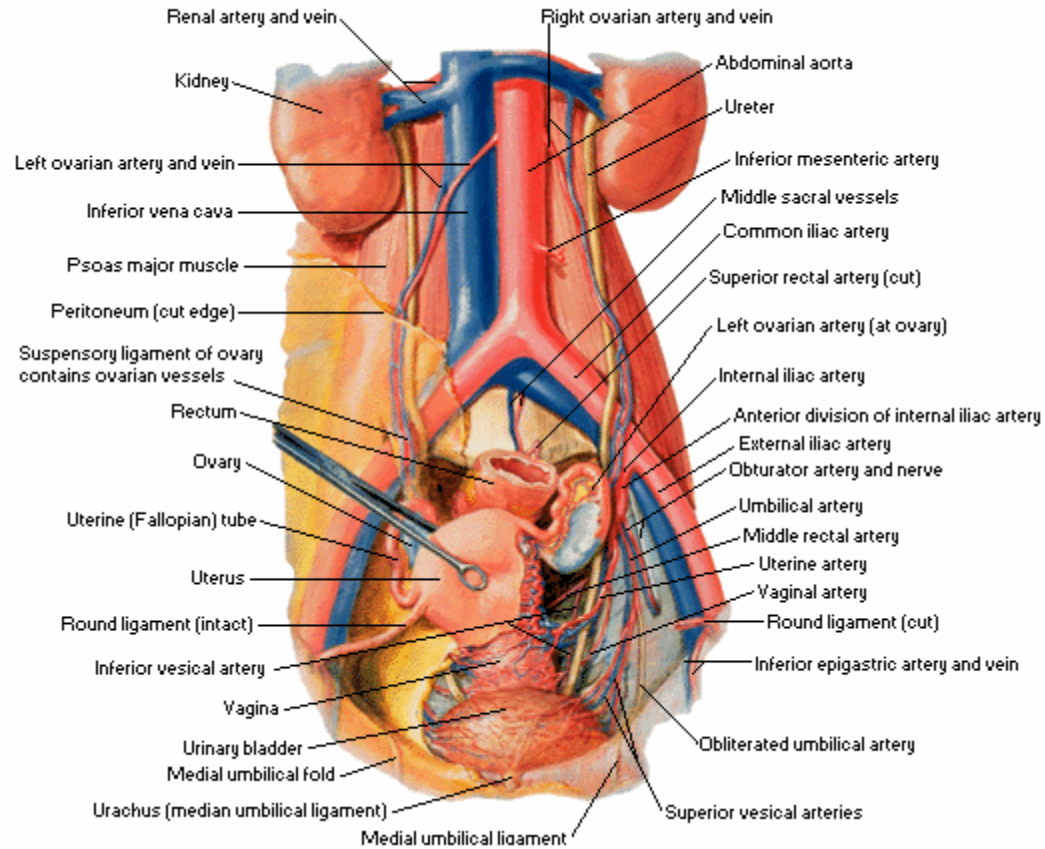


Anterior View

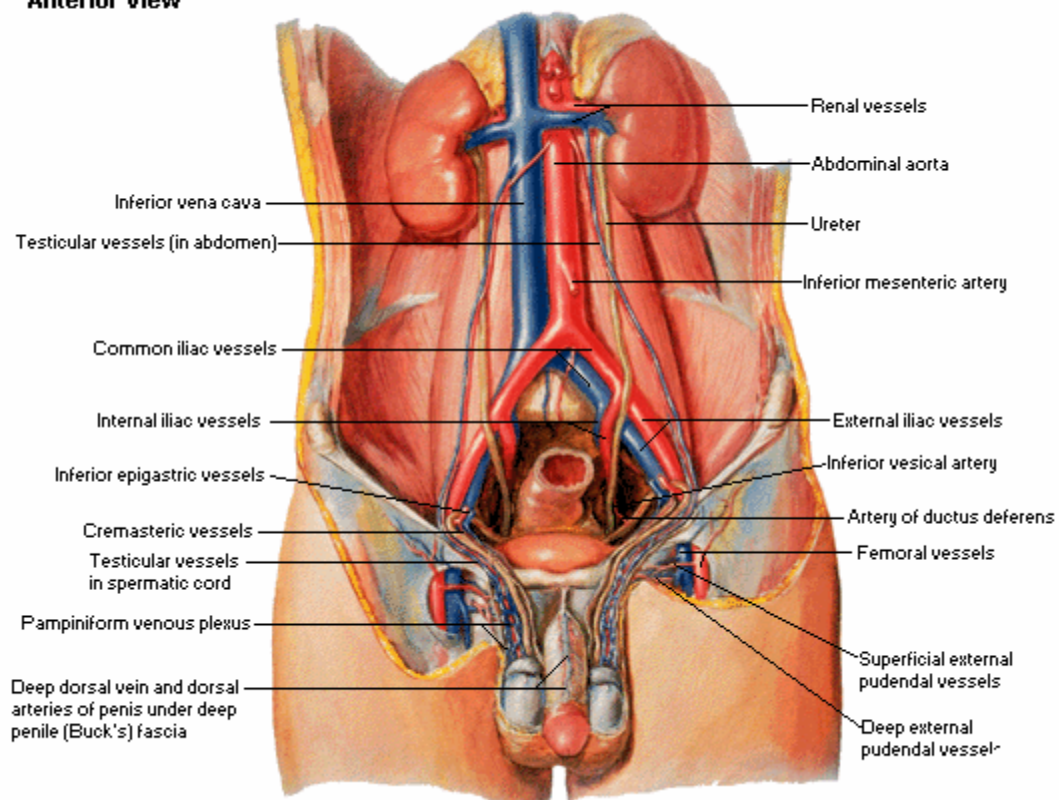


Anterior View

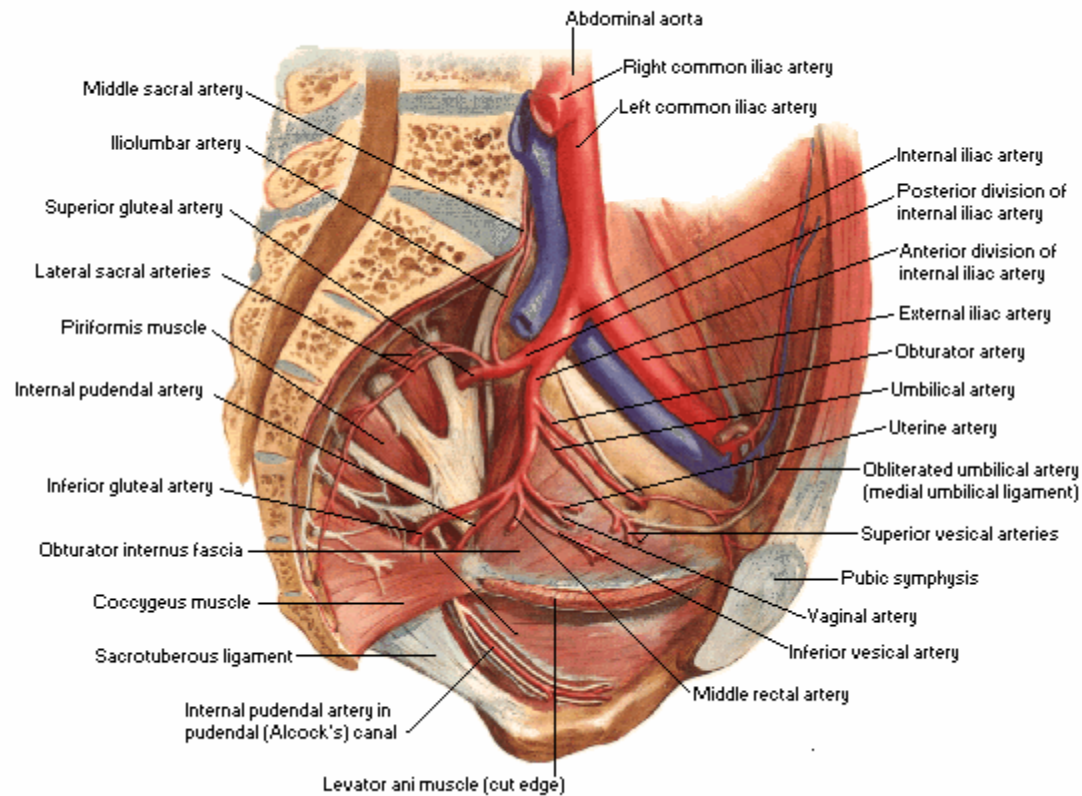
Female



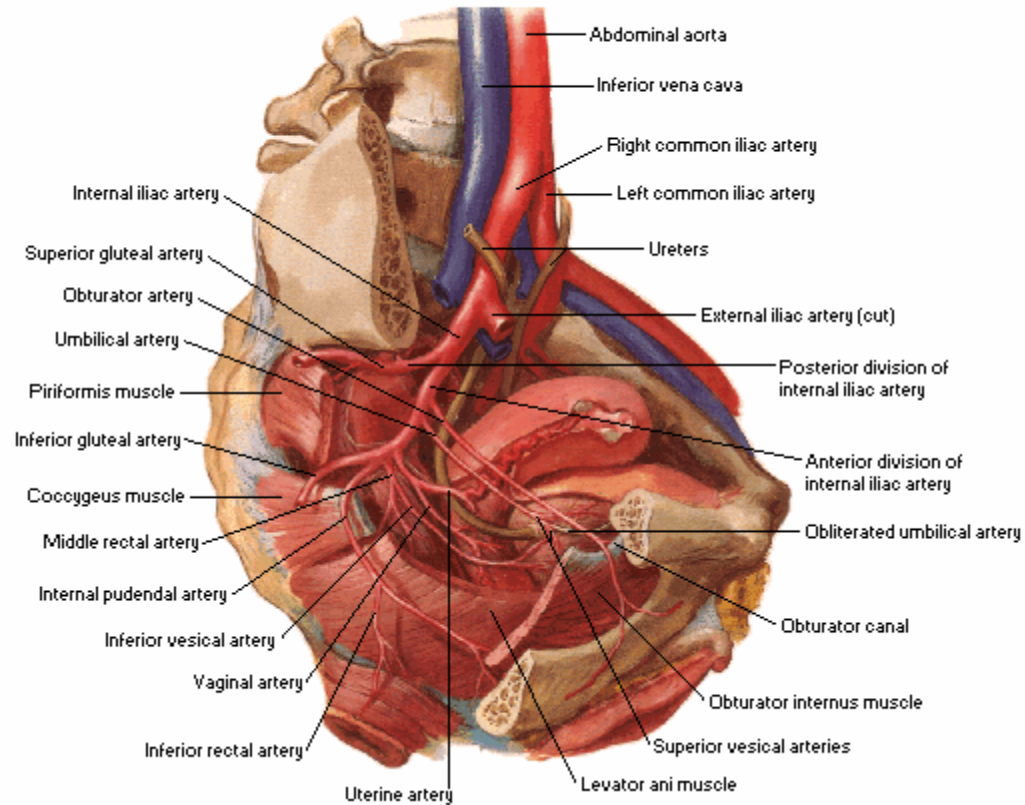
Anterior View



Female - Sagittal Section

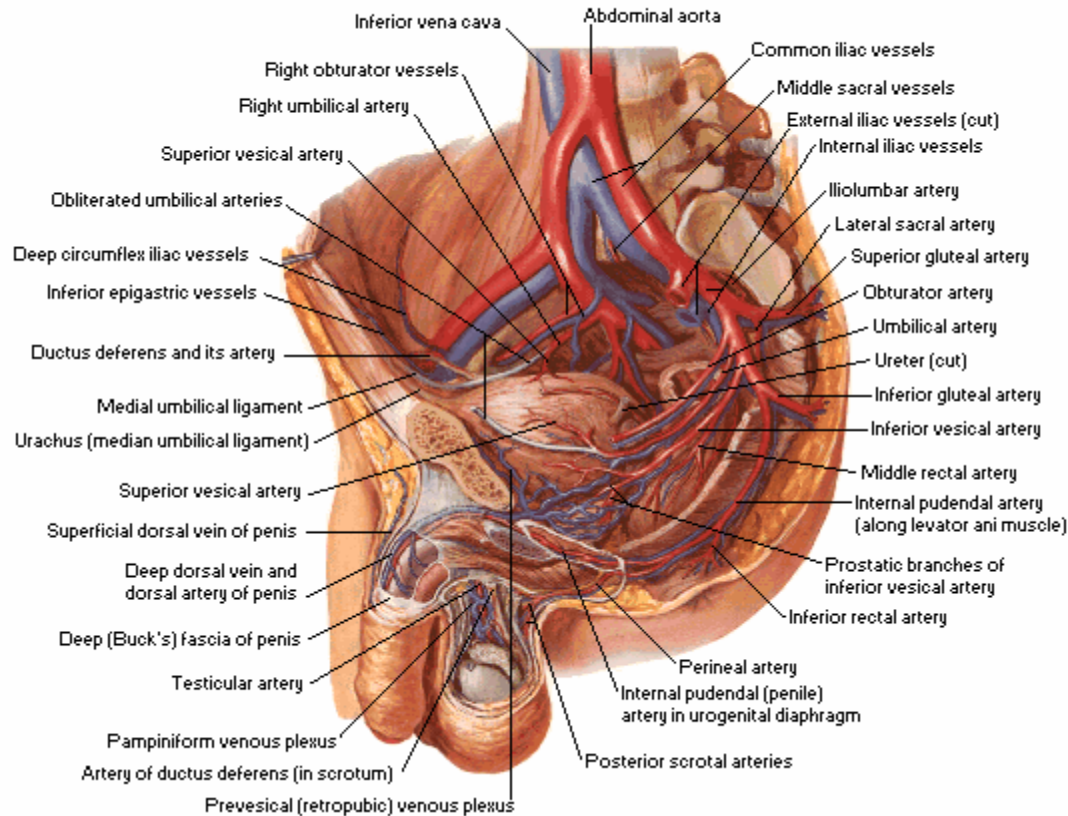


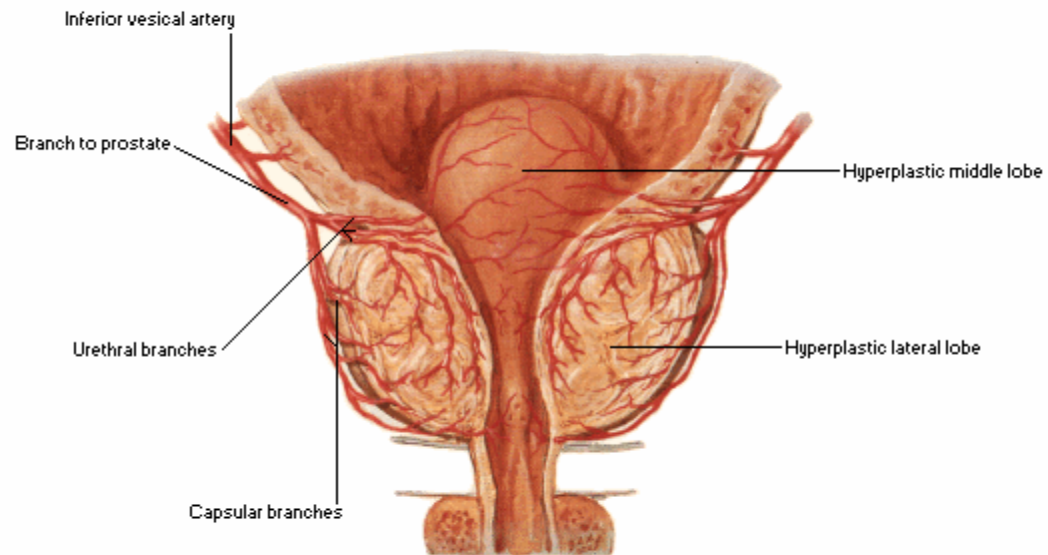
Female - Right Paramedian Section Lateral View



Male - Left Paramedian Section

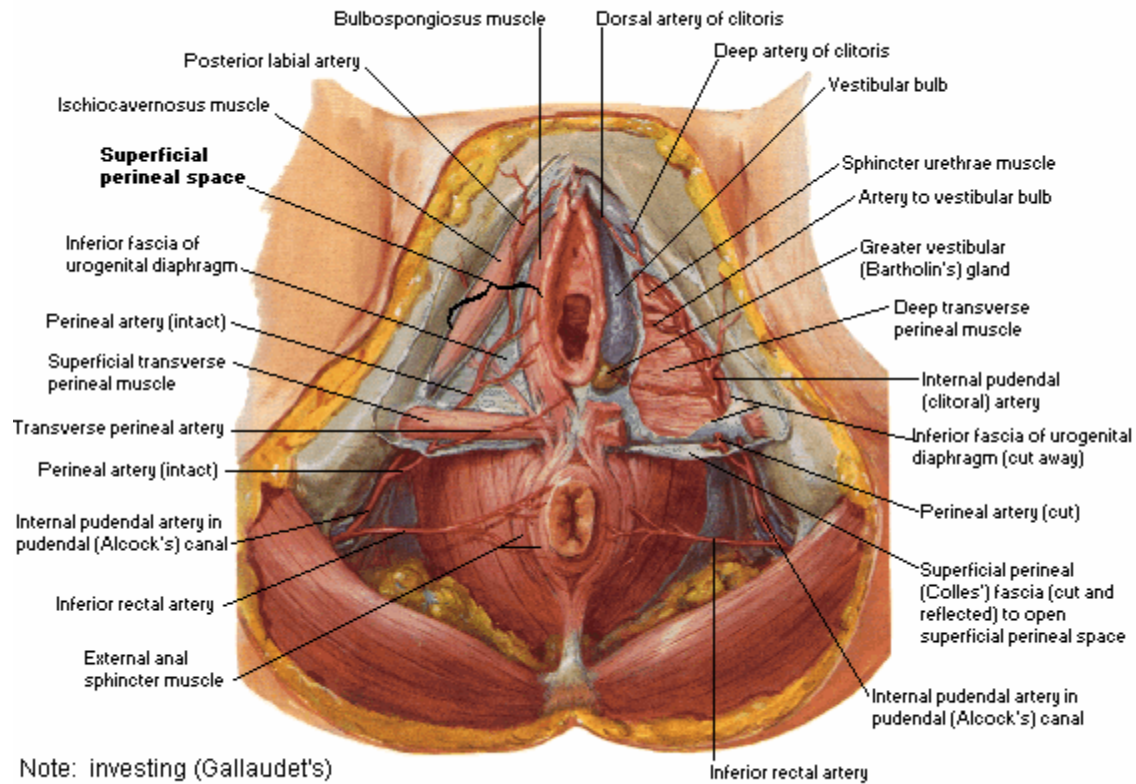
Lateral View



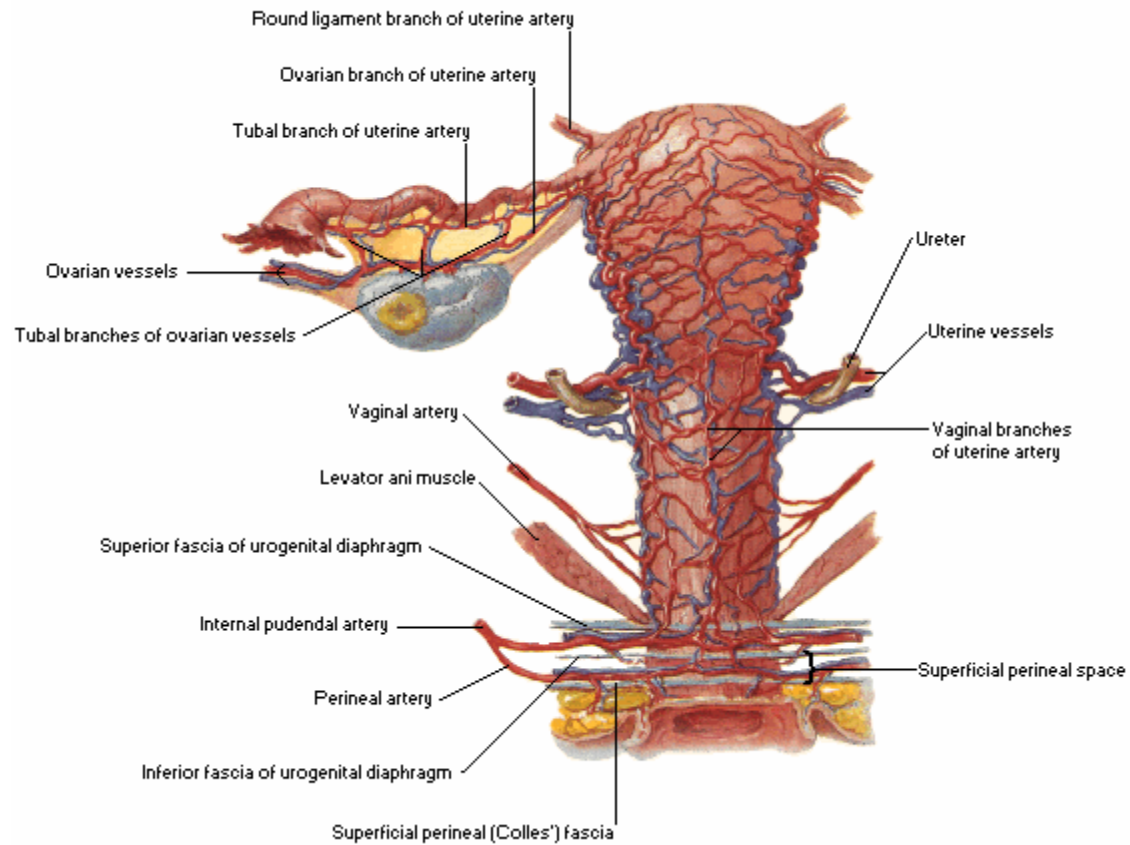


Benign hyperplasia specimen

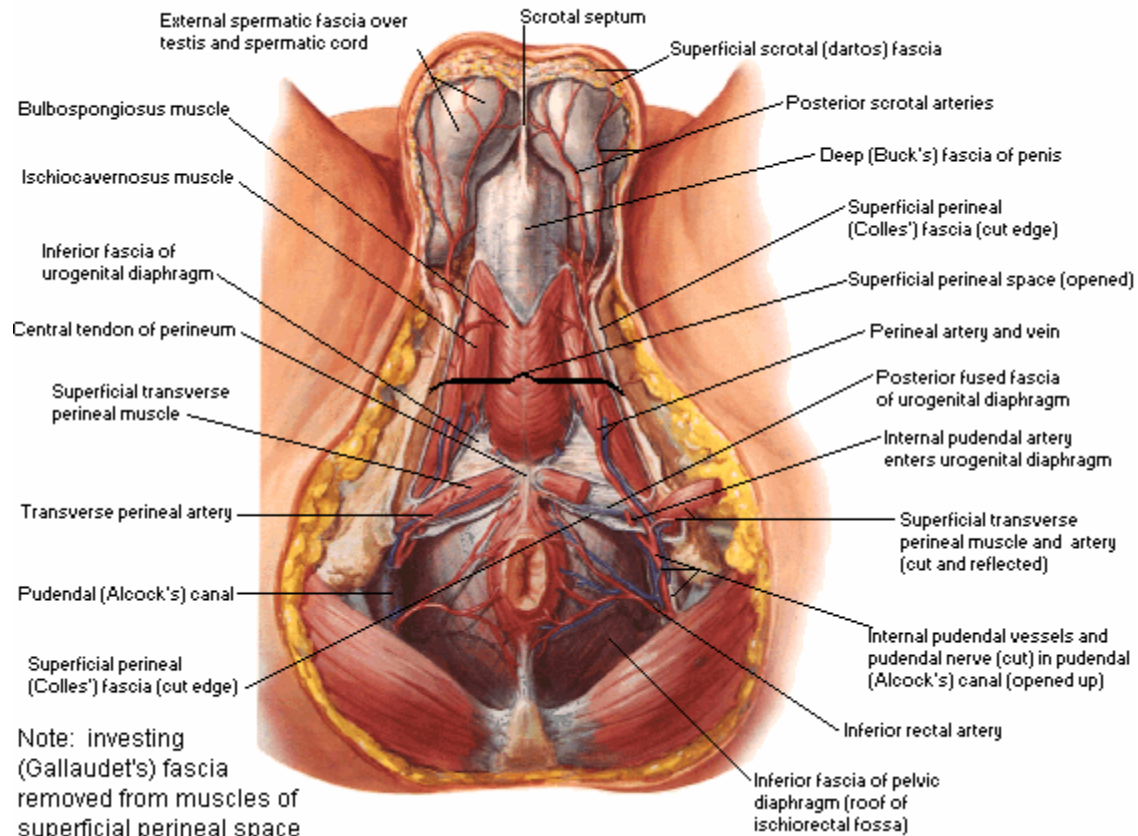
Female



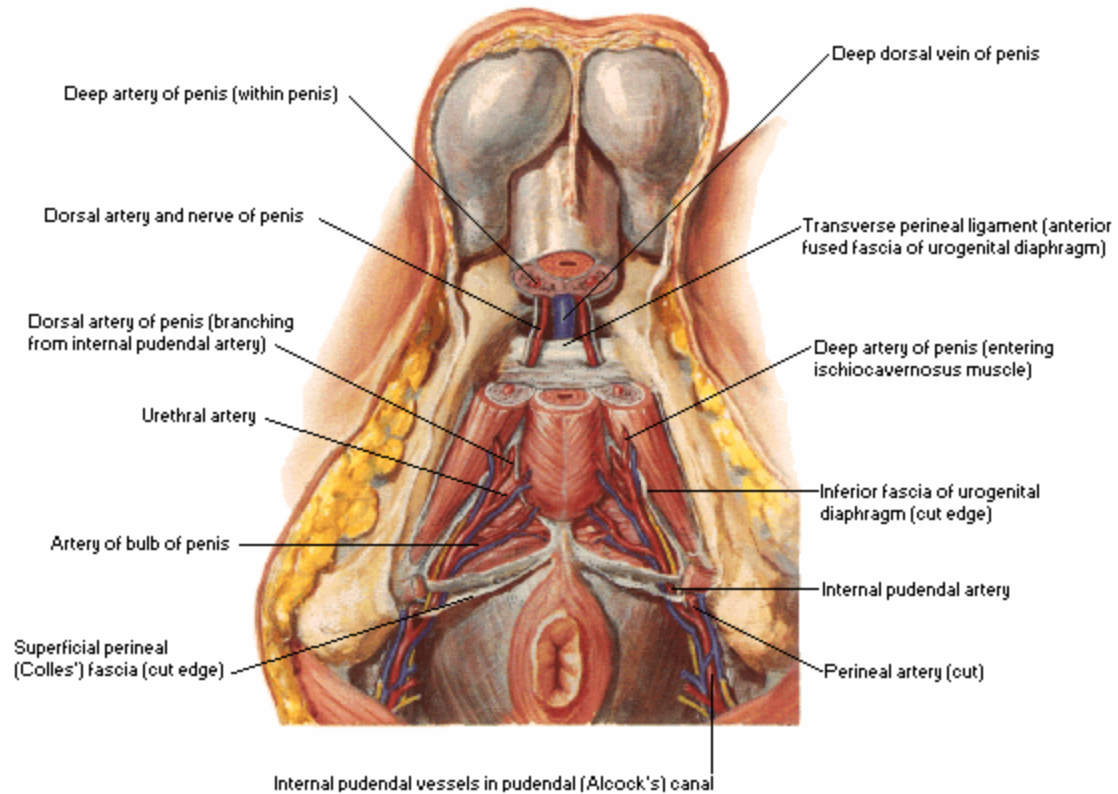
Note: investing (Gallaudet's) fascia removed from muscles of superficial perineal space



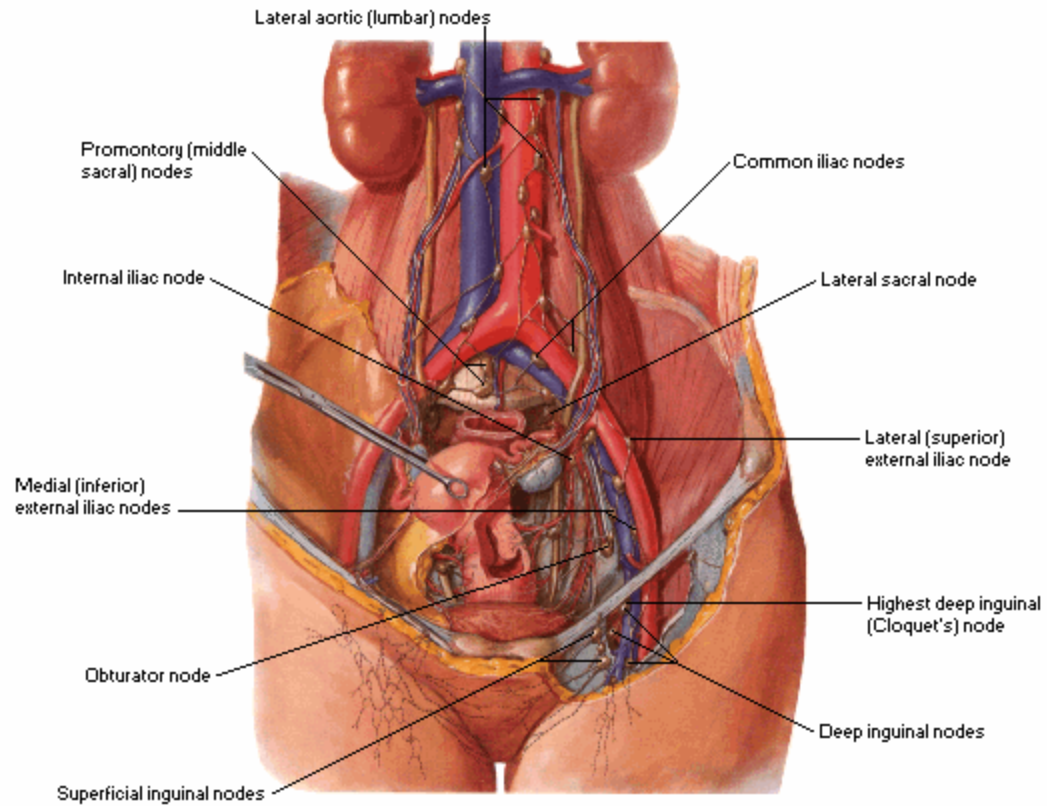
Male



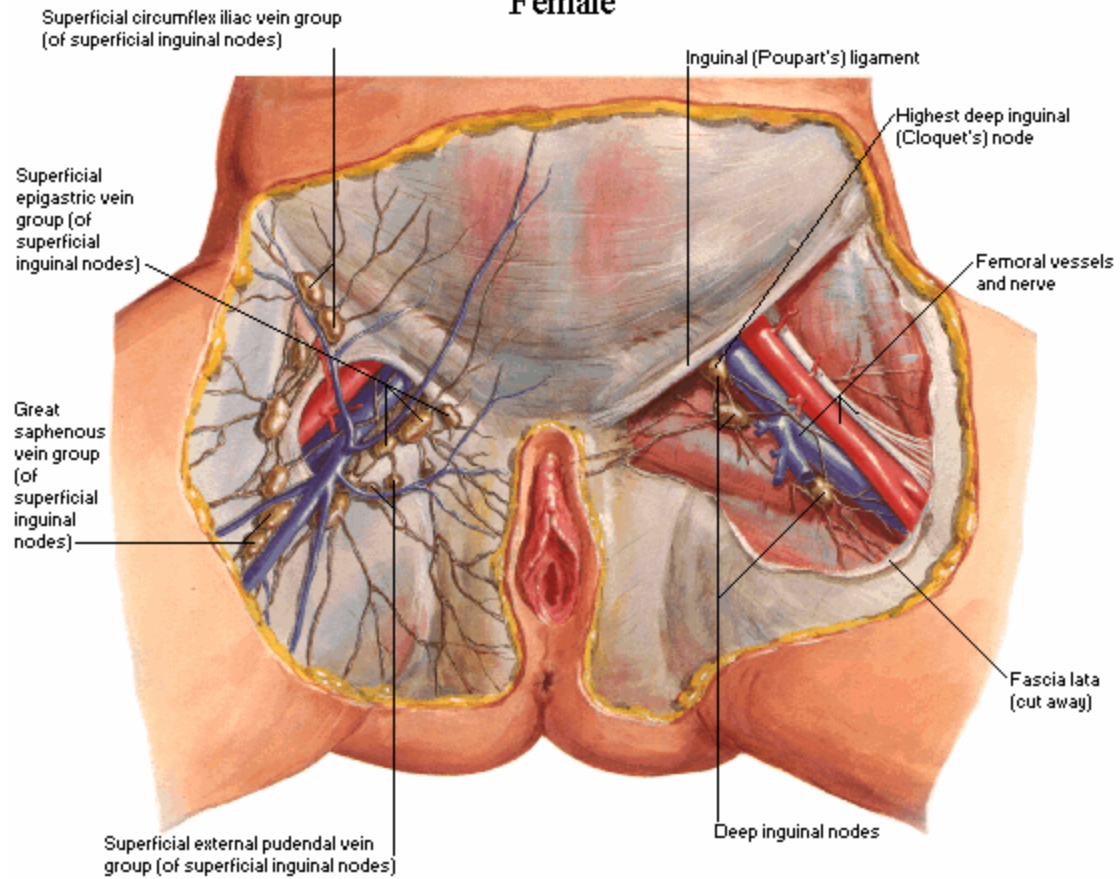
Male



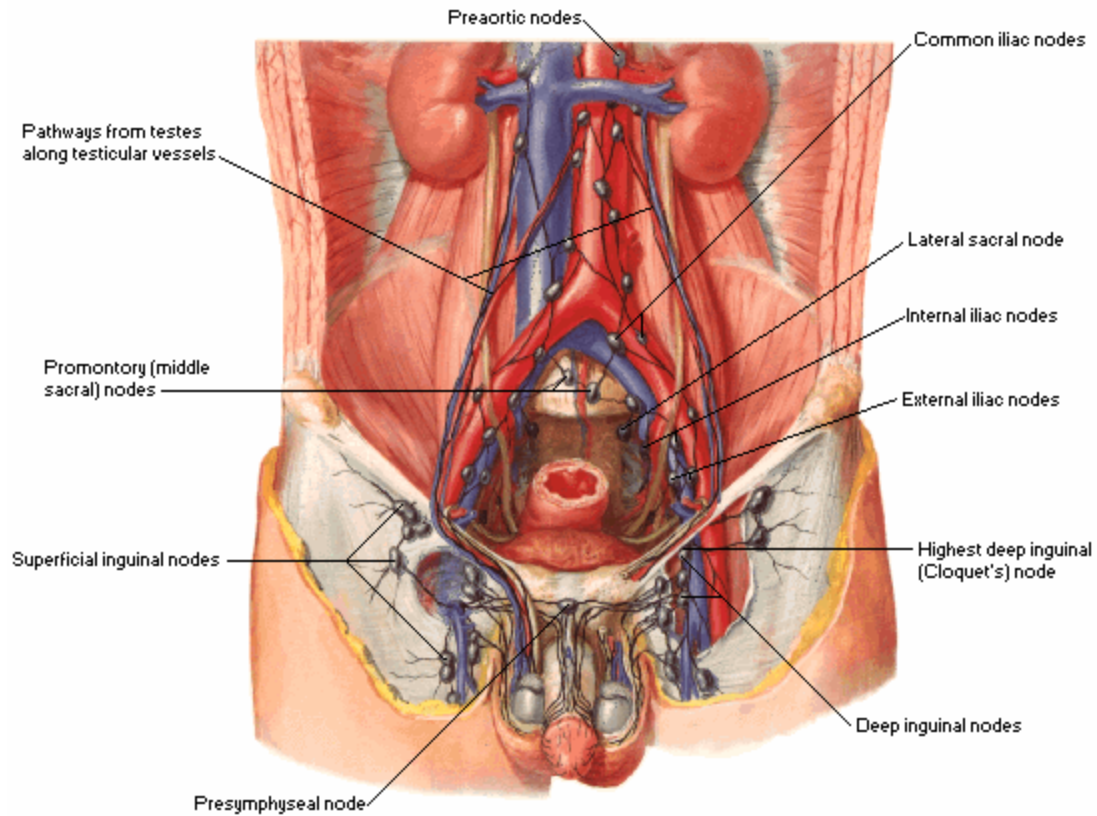
Female

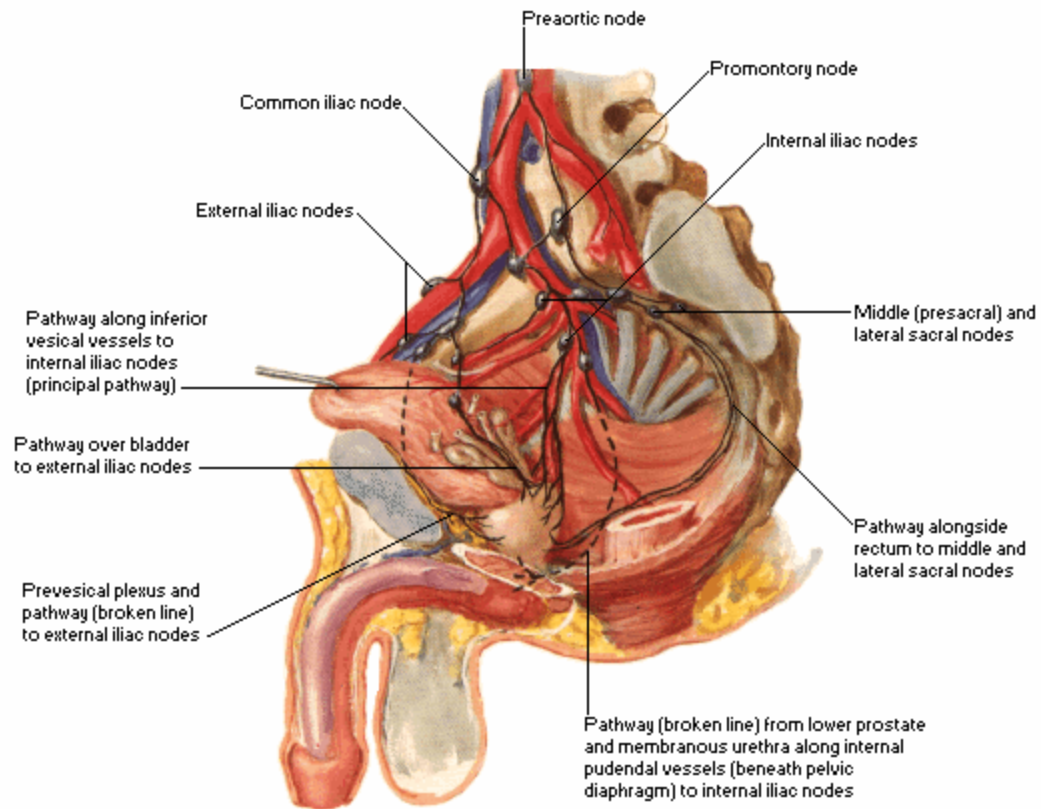


Female

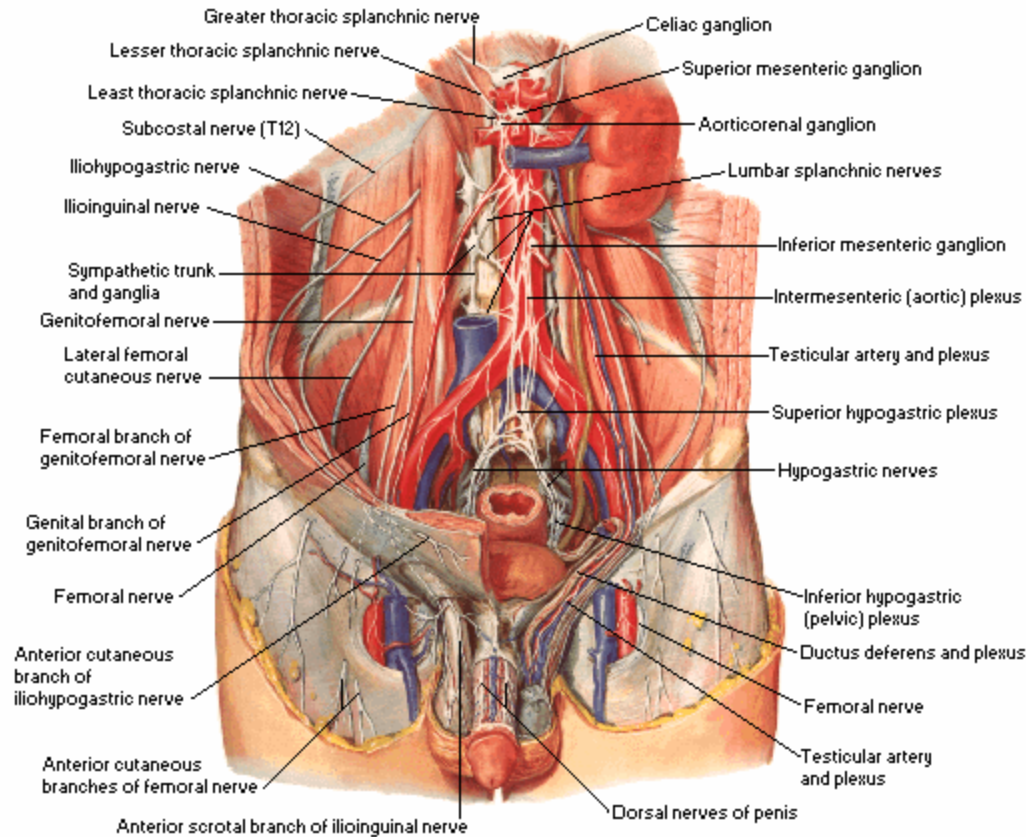


Male

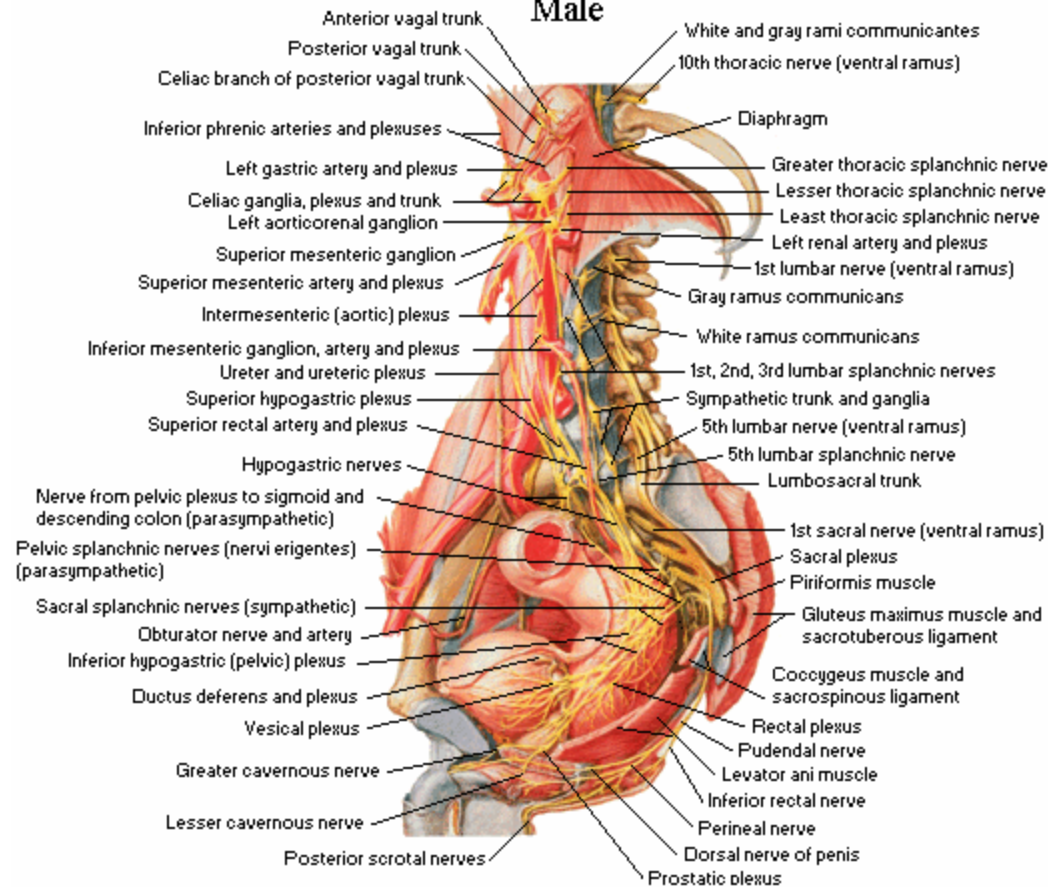




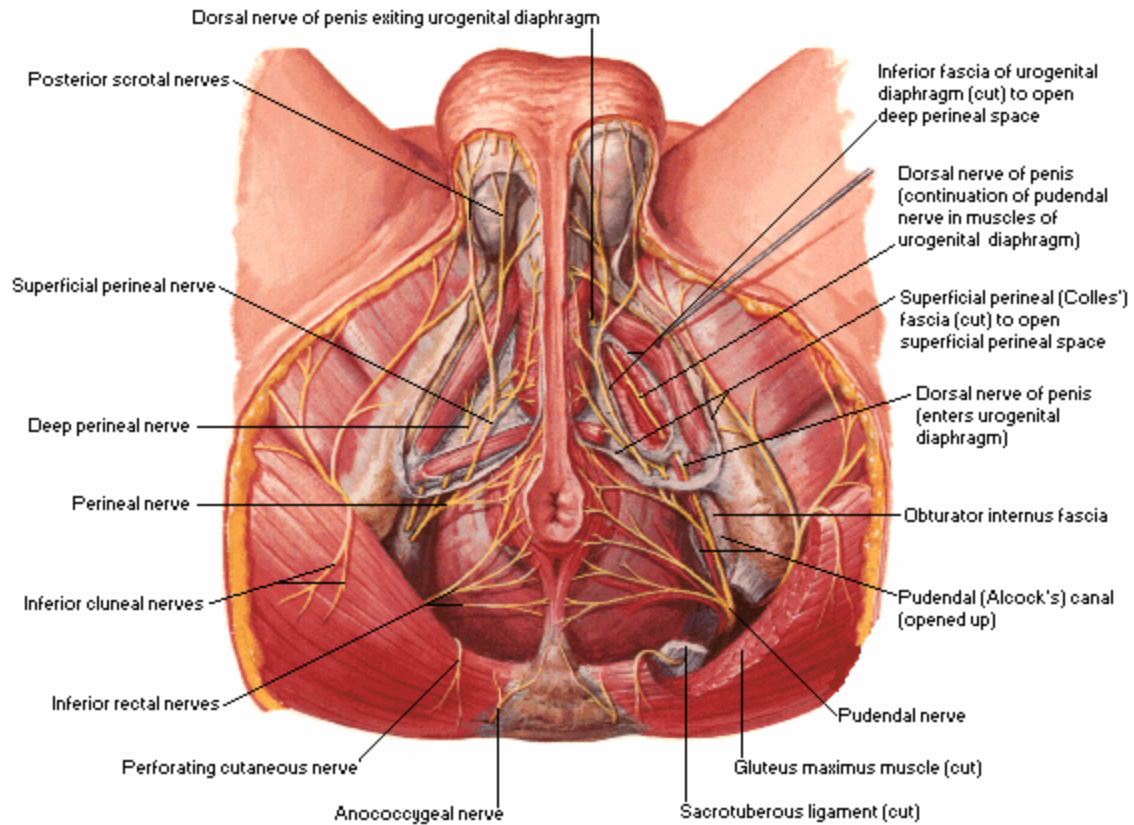
Male



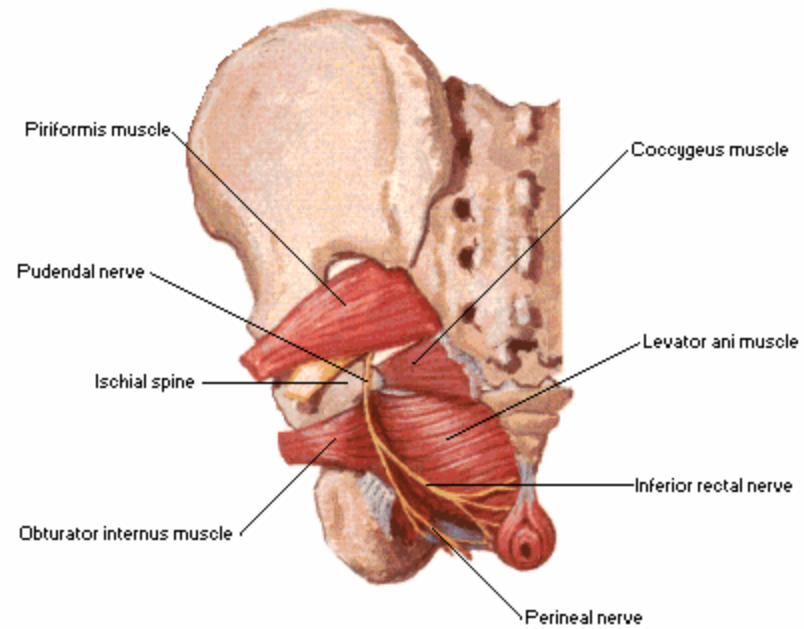
Male



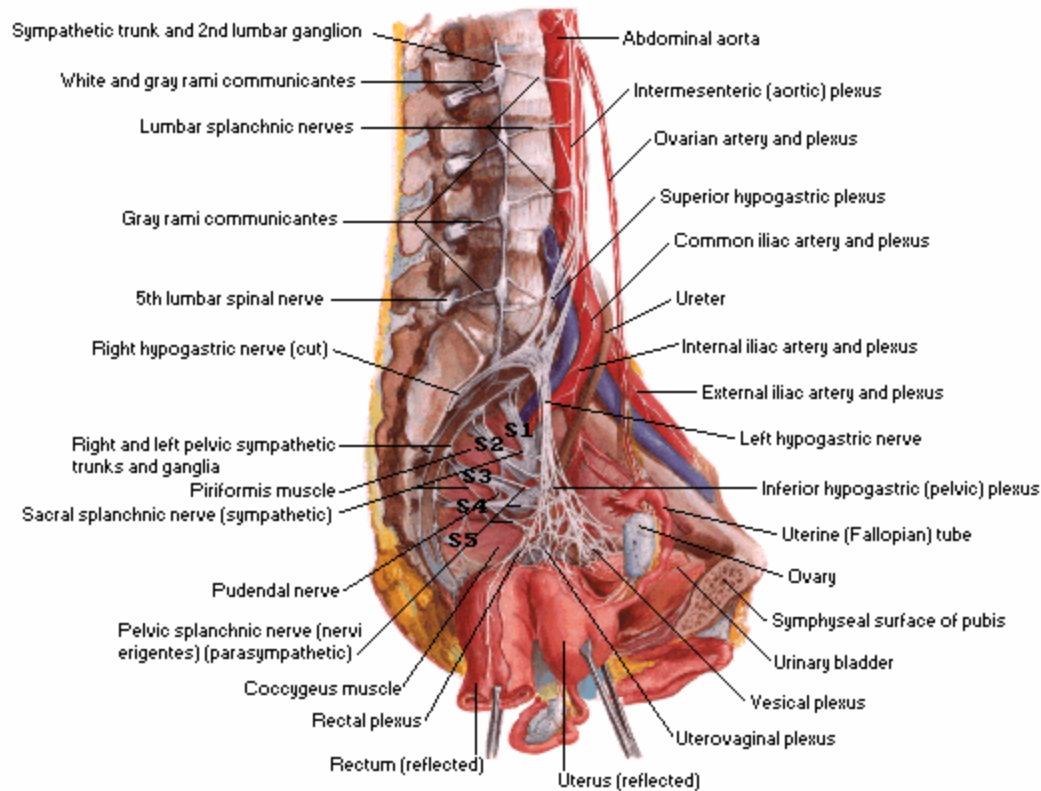
Male - Perineal View



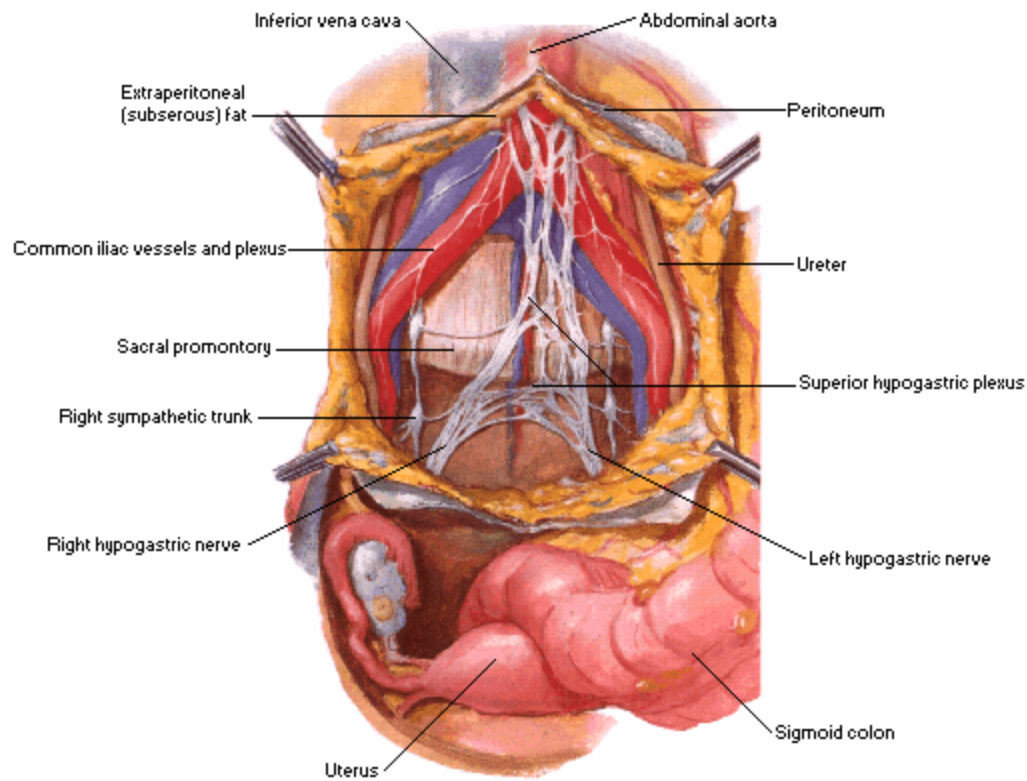
Male - Inferior View



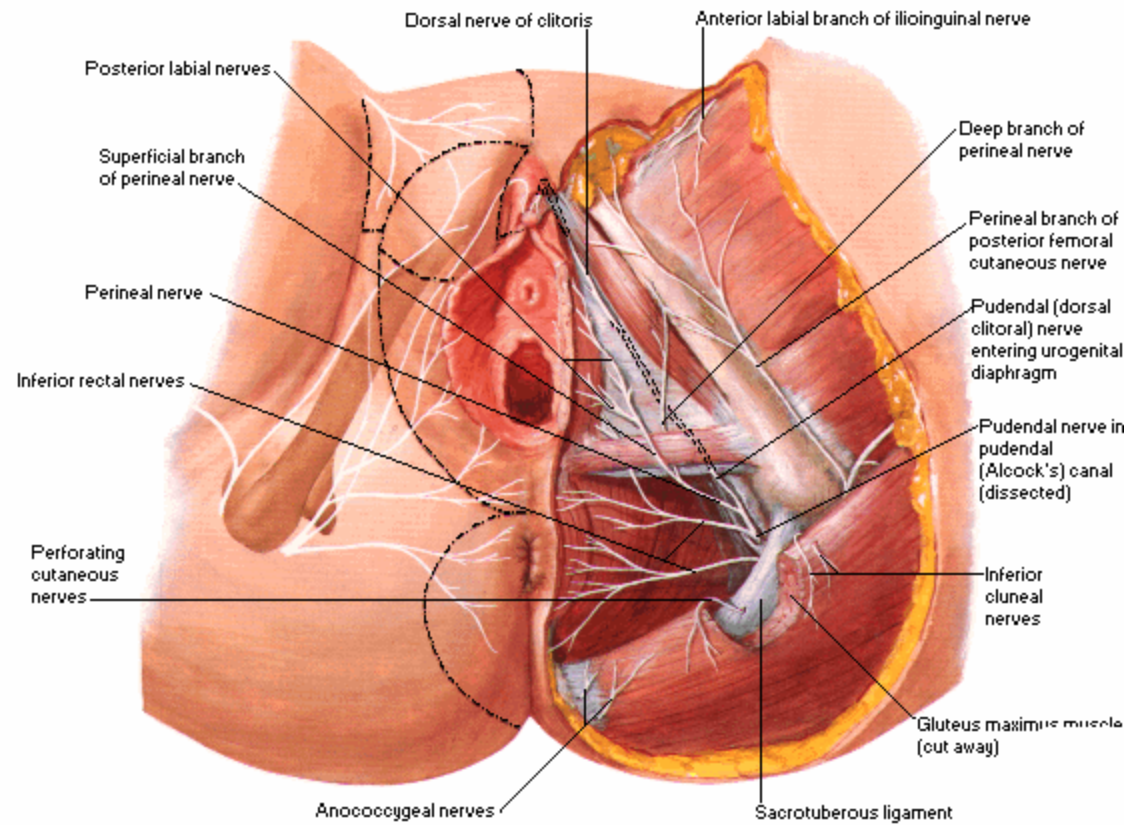
Female - Sagittal Section



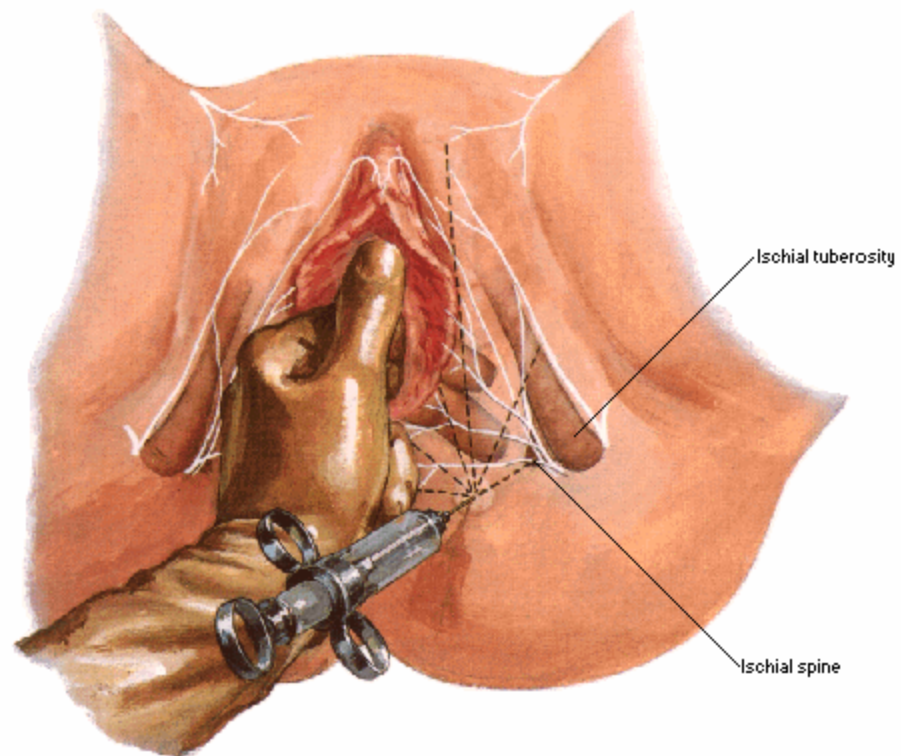
Female - Superior View

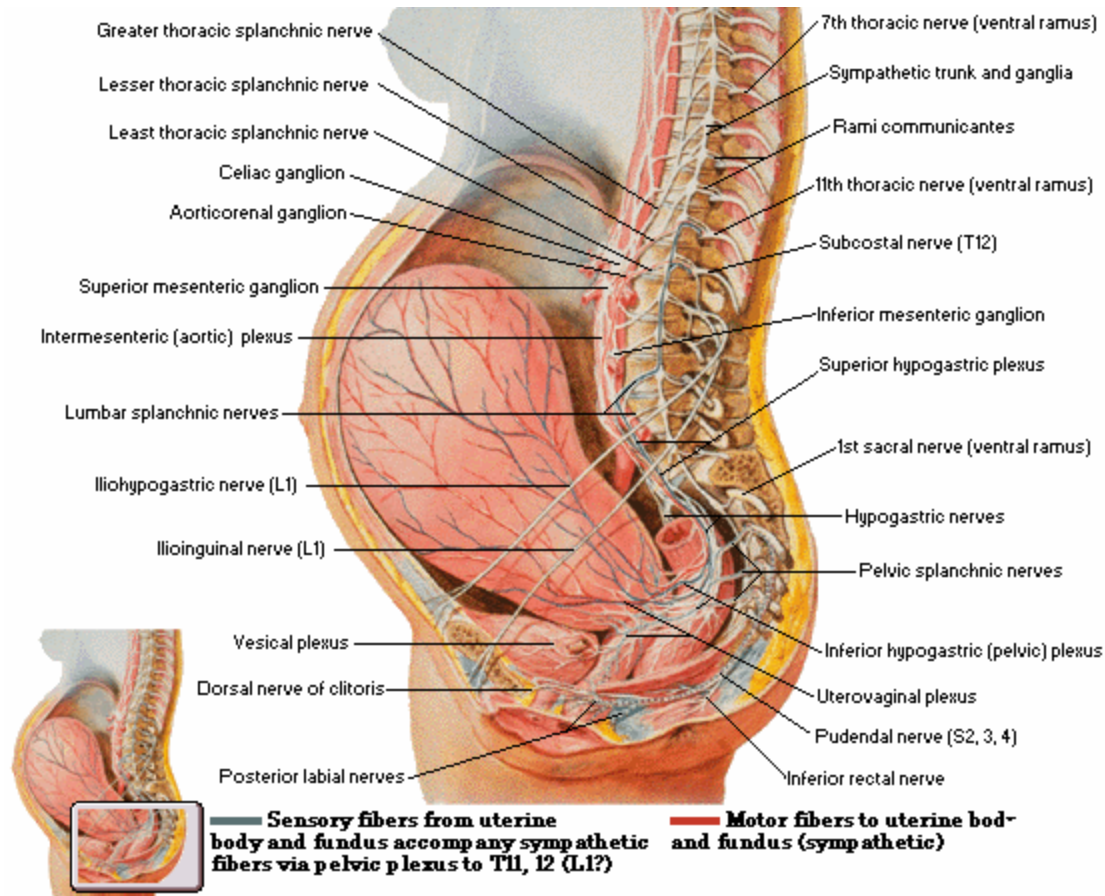


Female



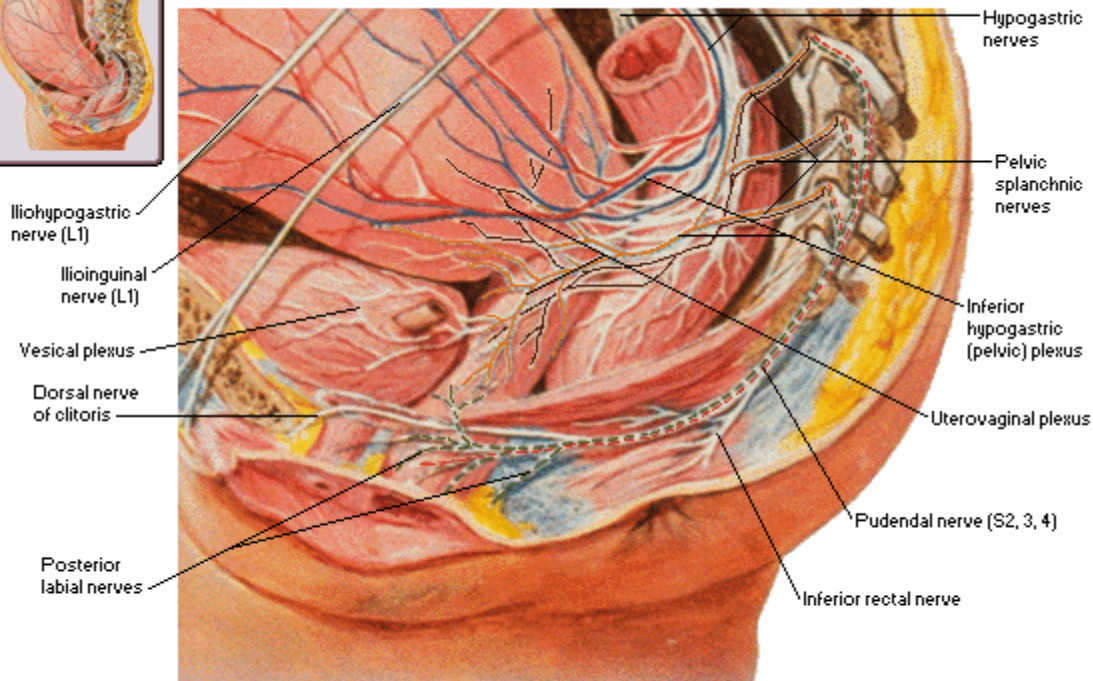
Primarily Pudendal Nerve







Pelvic Area Enlarged



— Sensory fibers from uterine body and fundus accompany sympathetic fibers via pelvic plexus to T11, 12 (L1?)

— Motor fibers to uterine body and fundus (sympathetic)

— Sensory fibers from cervix and upper vagina accompany pelvic splanchnic nerves (parasympathetic) to S2, 3, 4

— Motor fibers to lower uterine segment, cervix and upper vagina (parasympathetic)

— Sensory fibers from lower vagina and perineum accompany somatic fibers via pudendal nerve to S2, 3, 4

— Motor fibers to lower vagina and perineum via pudendal nerve (somatic)

Schema

Note: pain of uterine contractions goes via uterovaginal and pelvic plexuses, hypogastric nerves, superior hypogastric plexus, lower aortic plexus, lower lumbar splanchnic nerves, sympathetic trunk from L4 to L5 to spinal nerves T11, 12. Pain from cervical dilatation and upper vagina via pelvic splanchnic nerves to S2, 3, 4. Afferents from lower vagina and perineum via pudendal nerves to S2, 3, 4

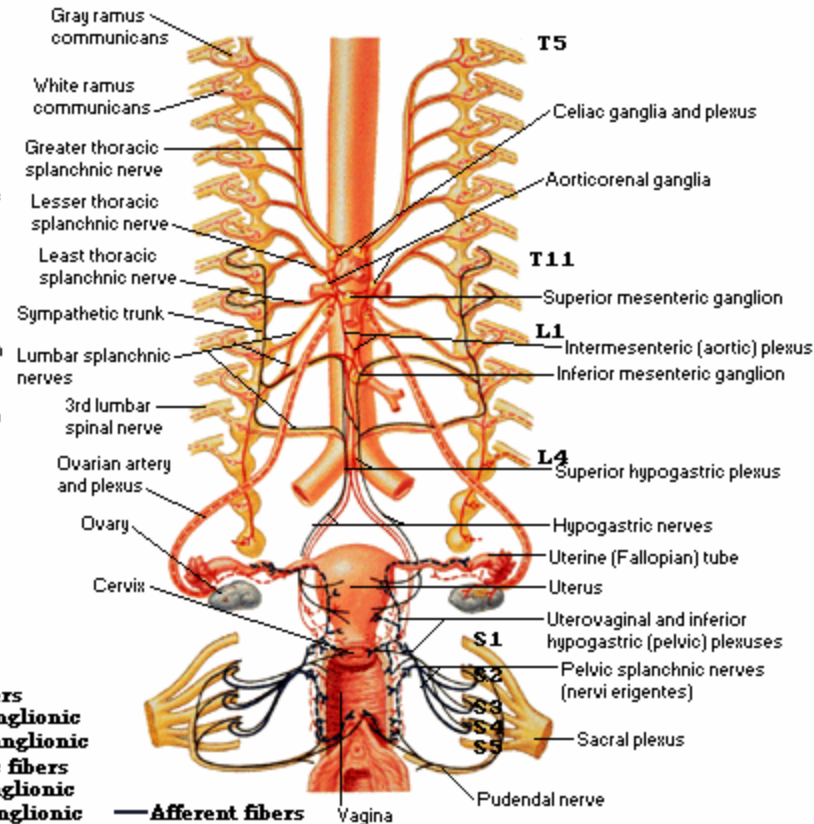
Sympathetic fibers

- Preganglionic
- - - Postganglionic

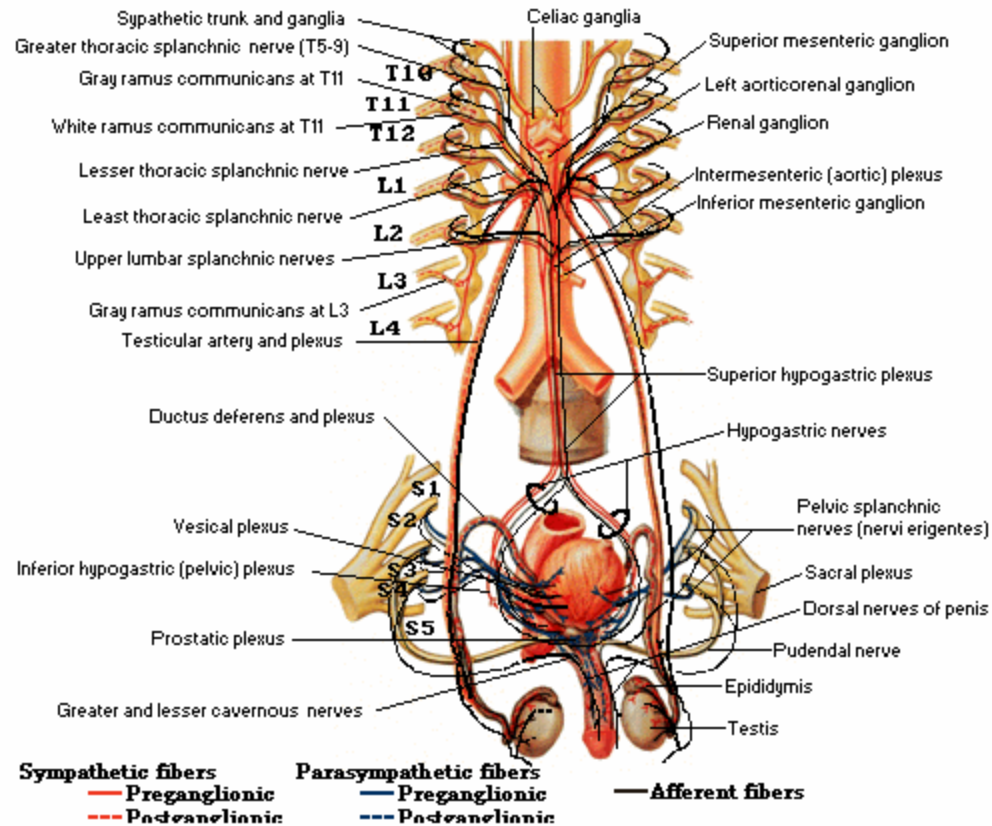
Parasympathetic fibers

- Preganglionic
- - - Postganglionic

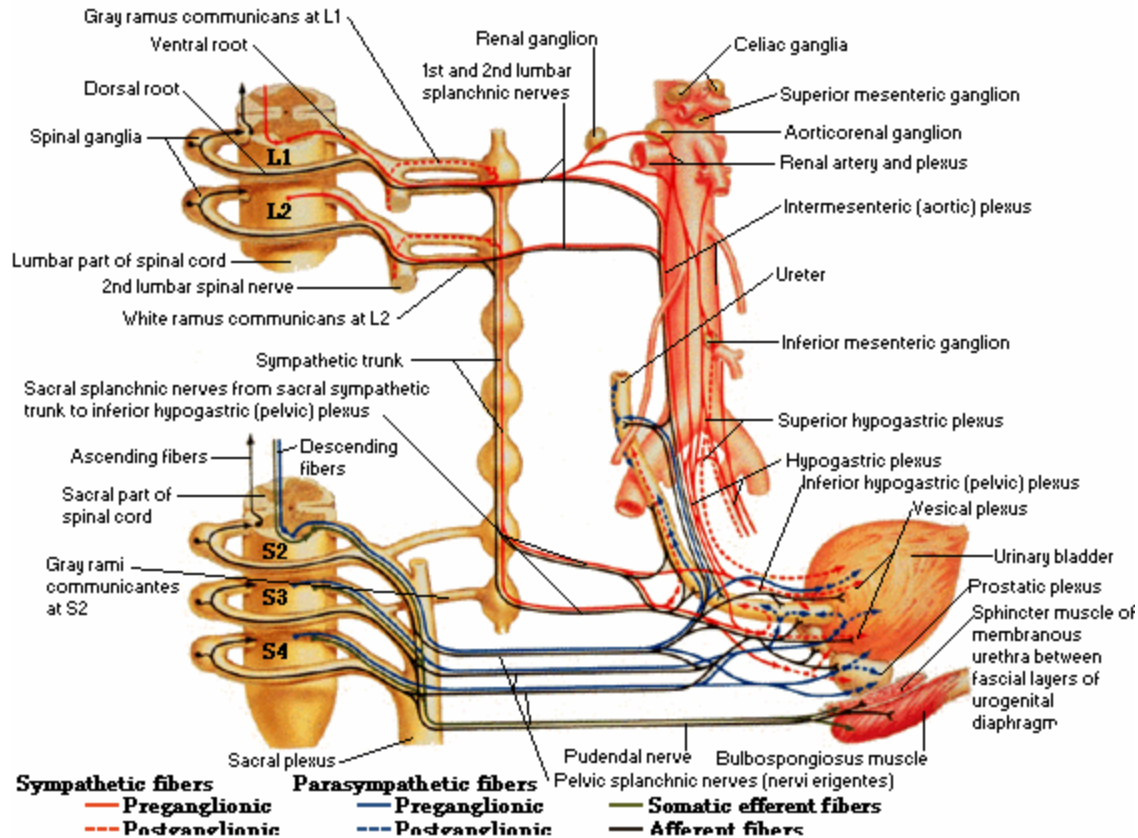
Afferent fibers



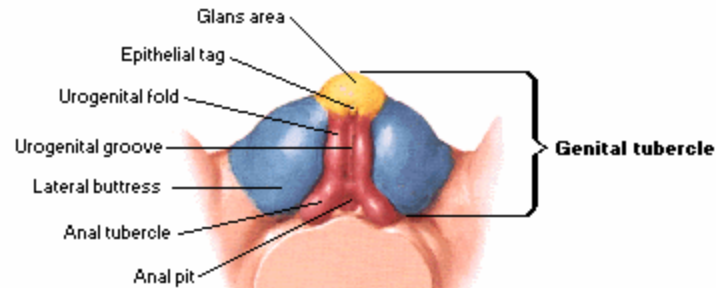
Schema



Schema

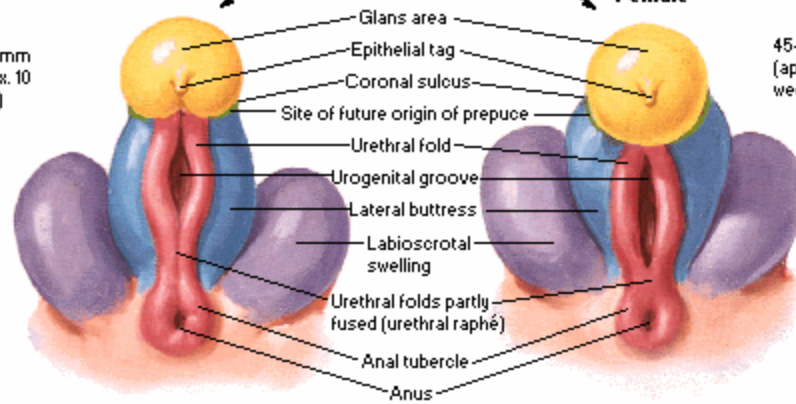


Undifferentiated Stage



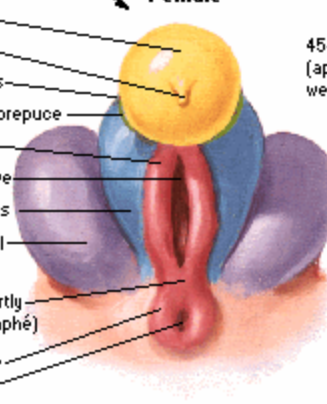
Male

45- 50 mm
(approx. 10
weeks)

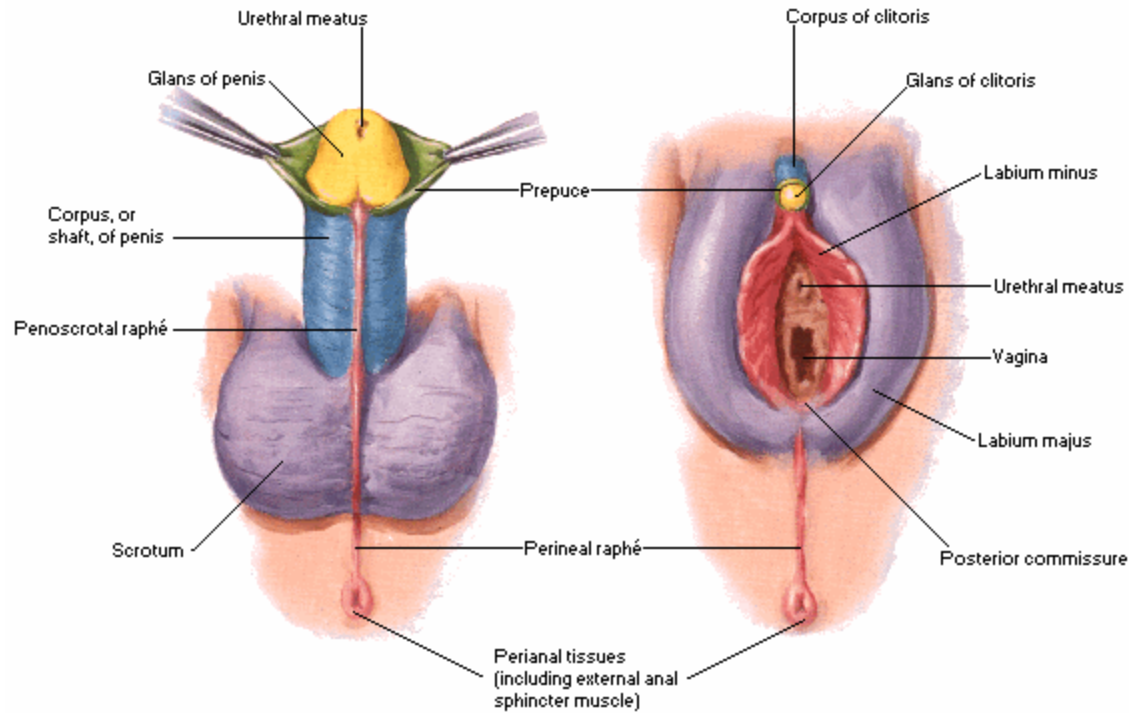


Female

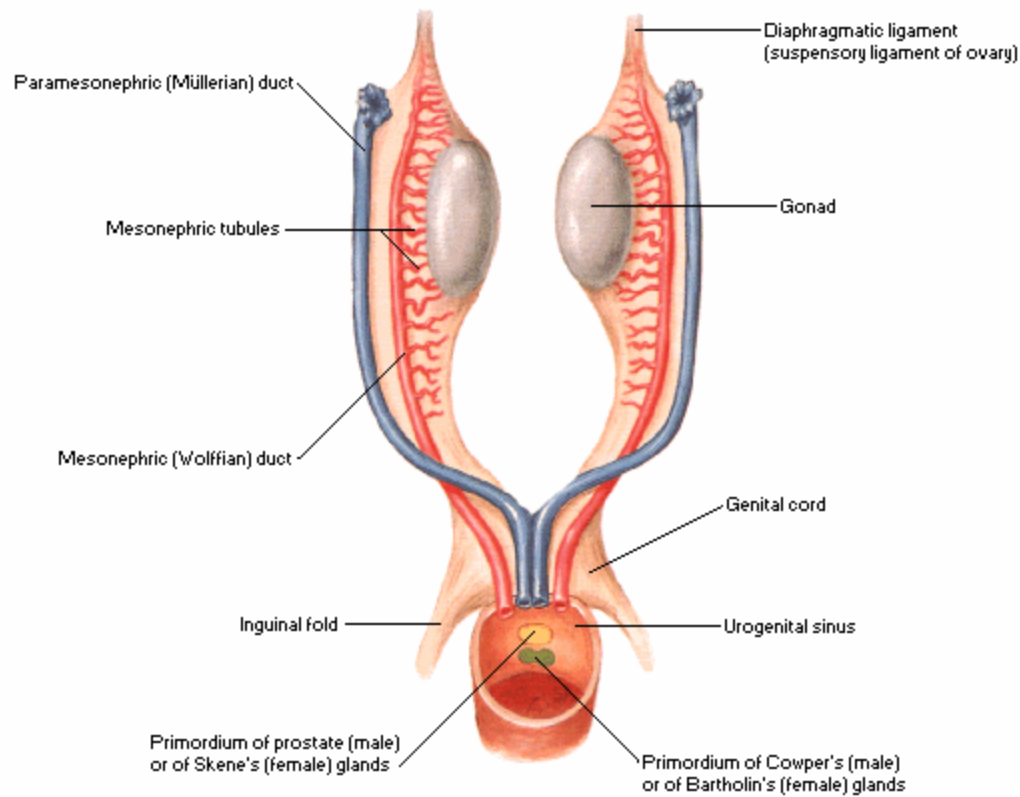
45- 50 mm
(approx. 10
weeks)



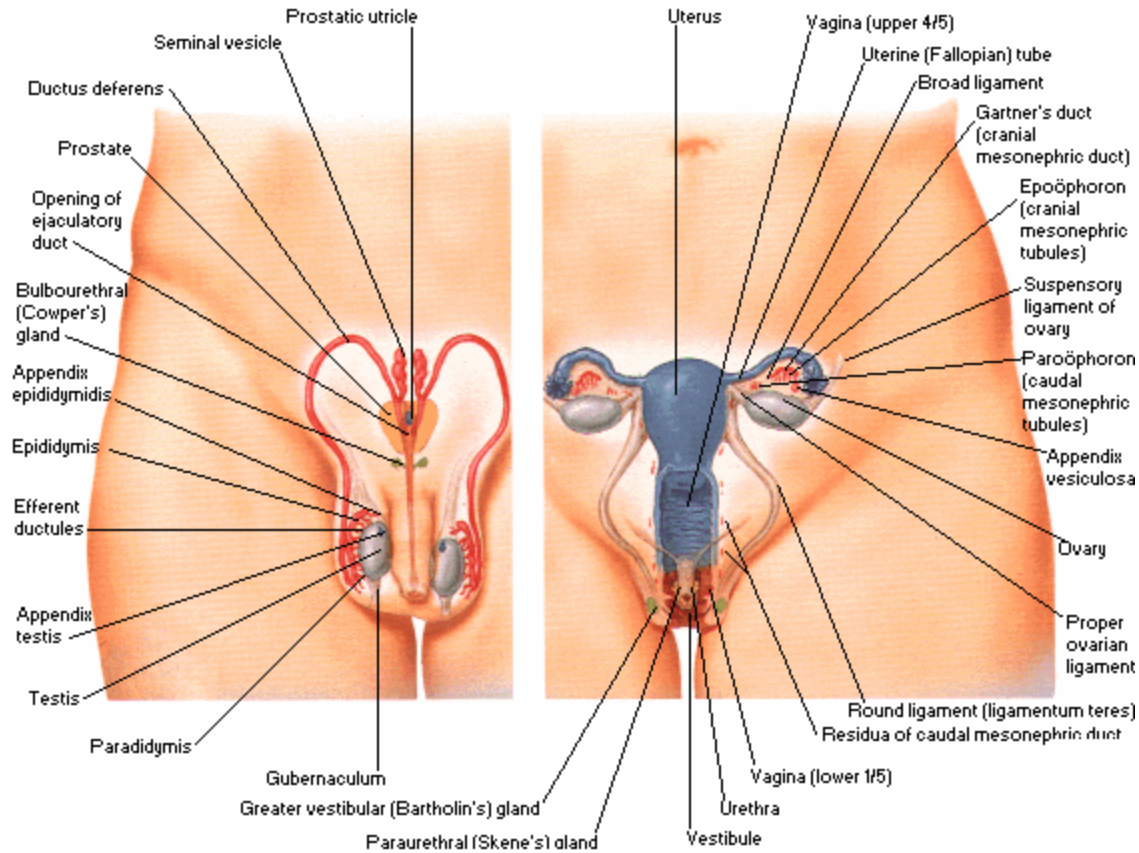
Fully Developed Male and Female



Undifferentiated Stage

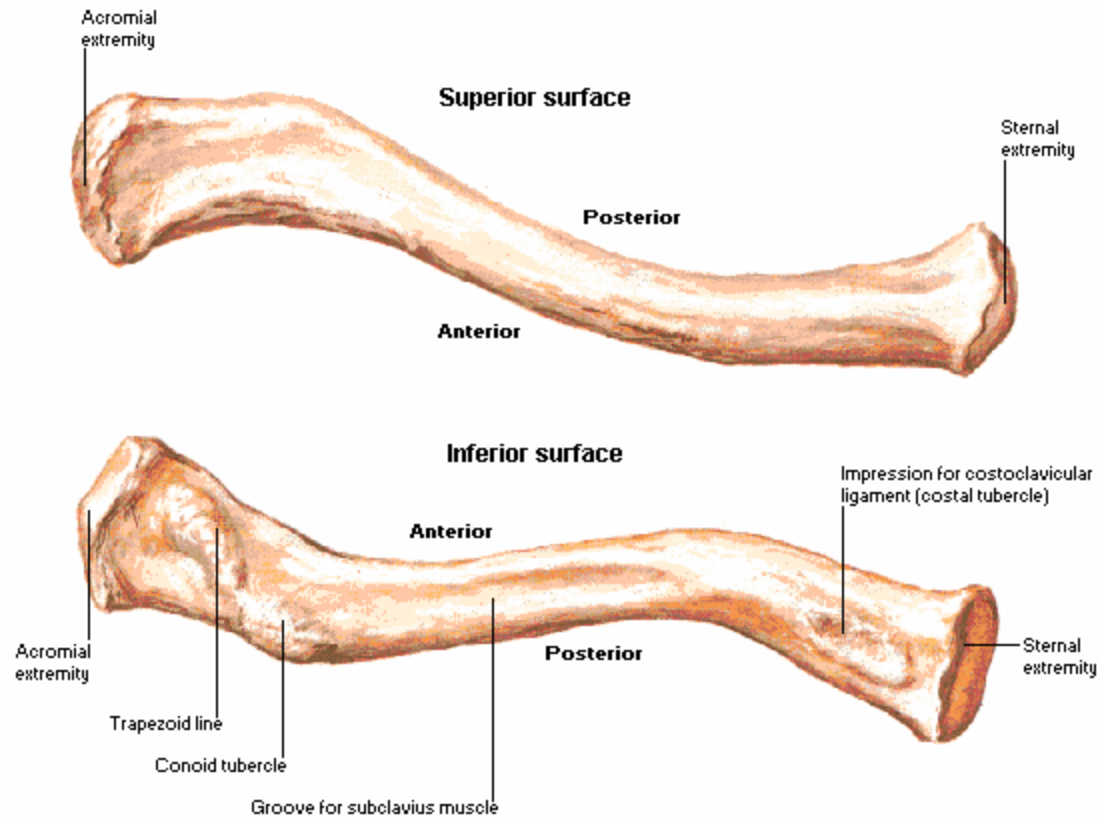


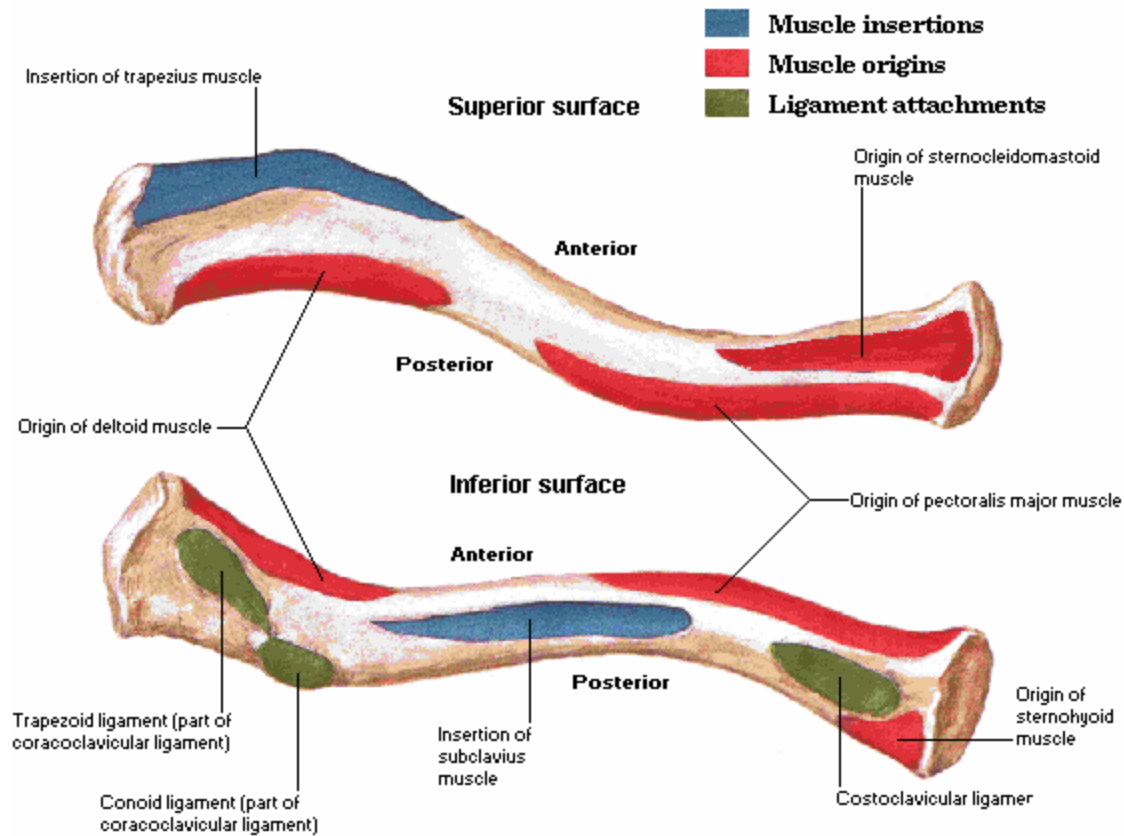
Fully Developed Male and Female

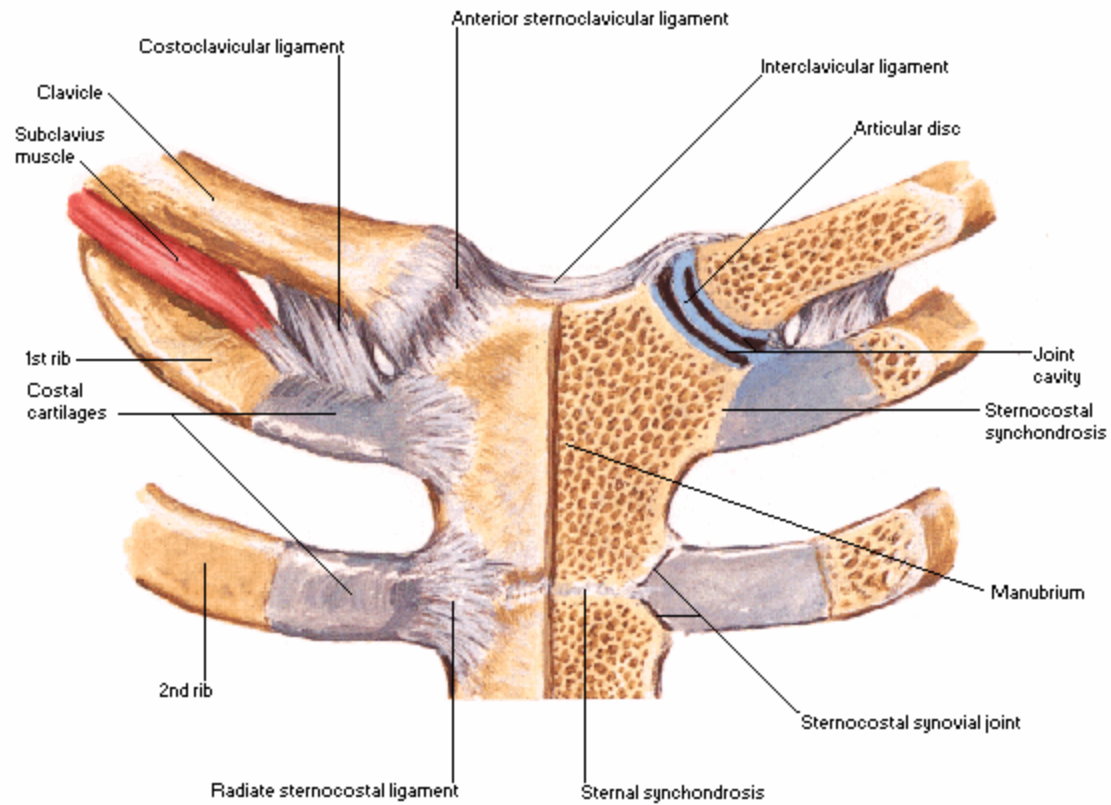


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For Evaluation Only.

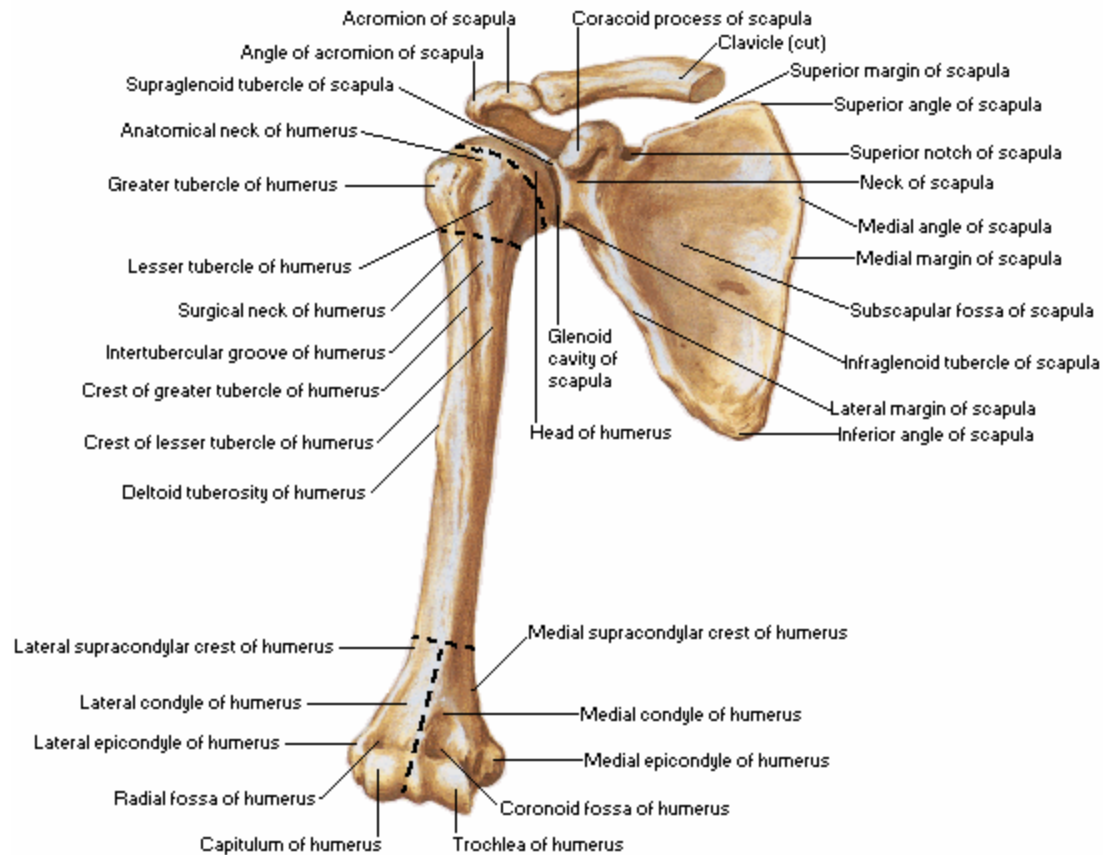
MEMBROS SUPERIORES



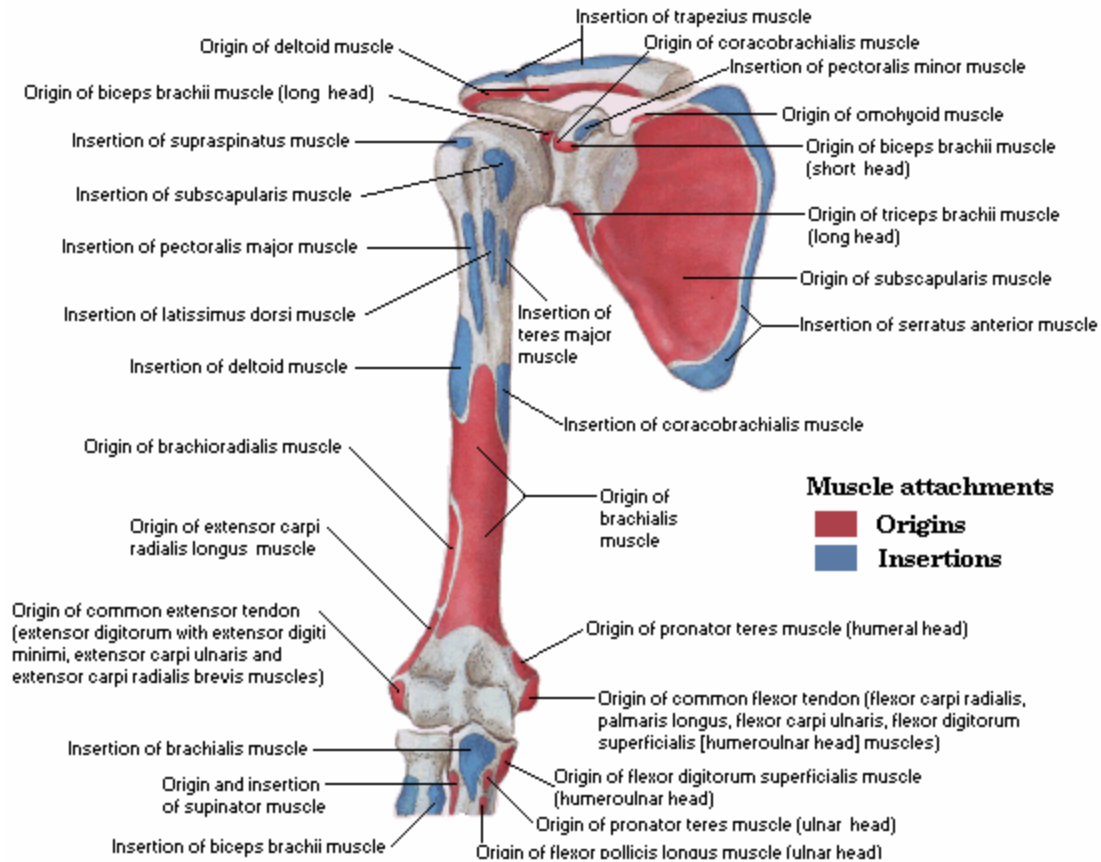




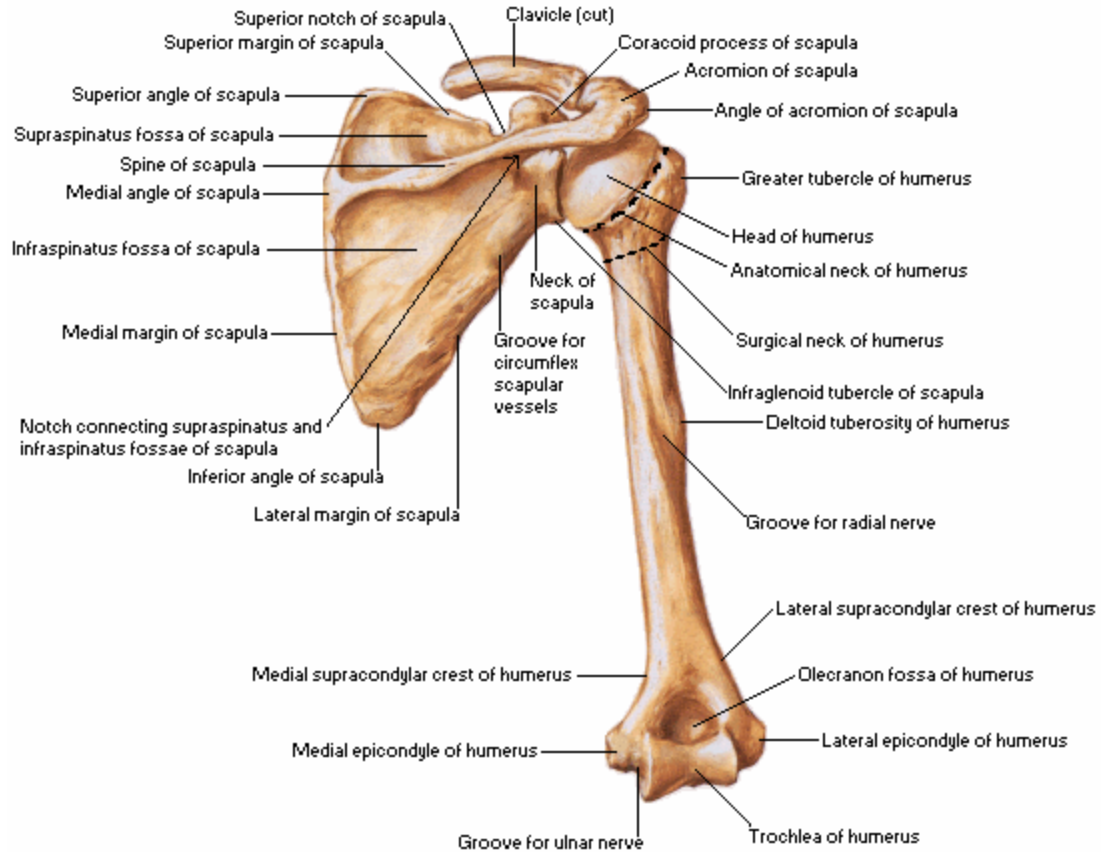
Anterior View - Features



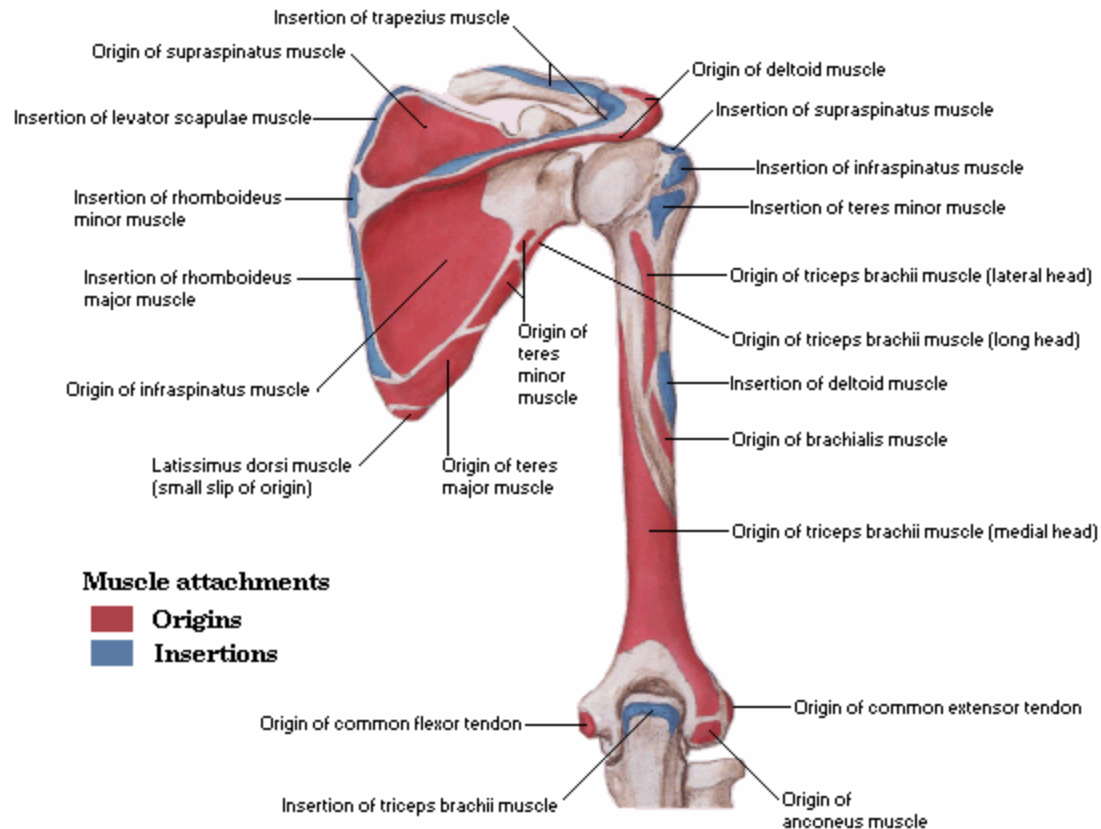
Anterior View - Muscle Attachments



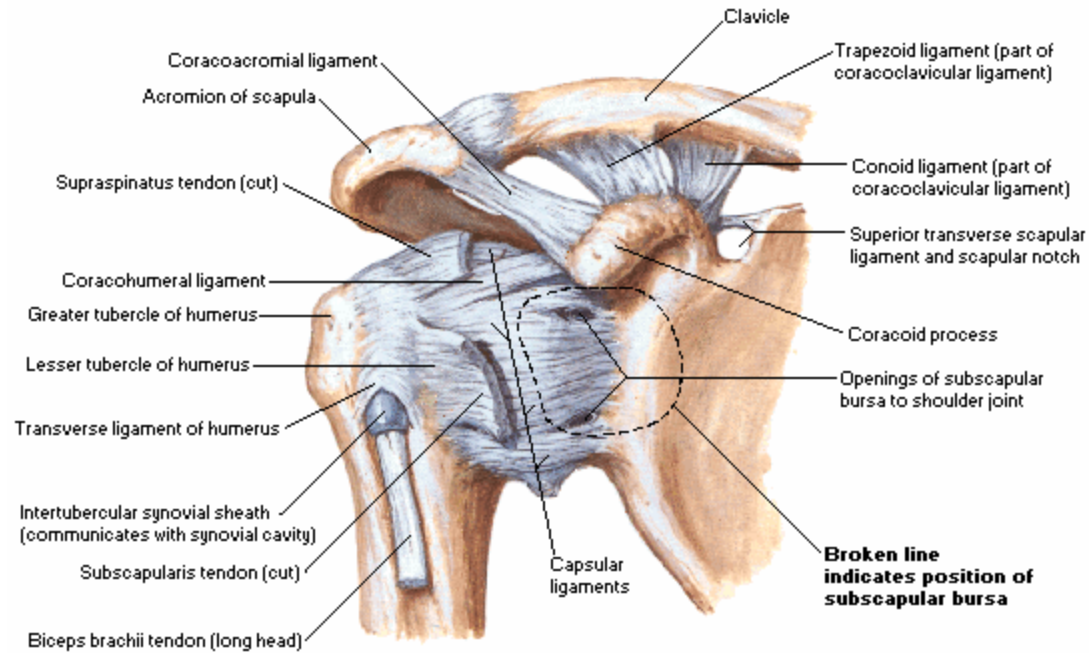
Posterior View - Features



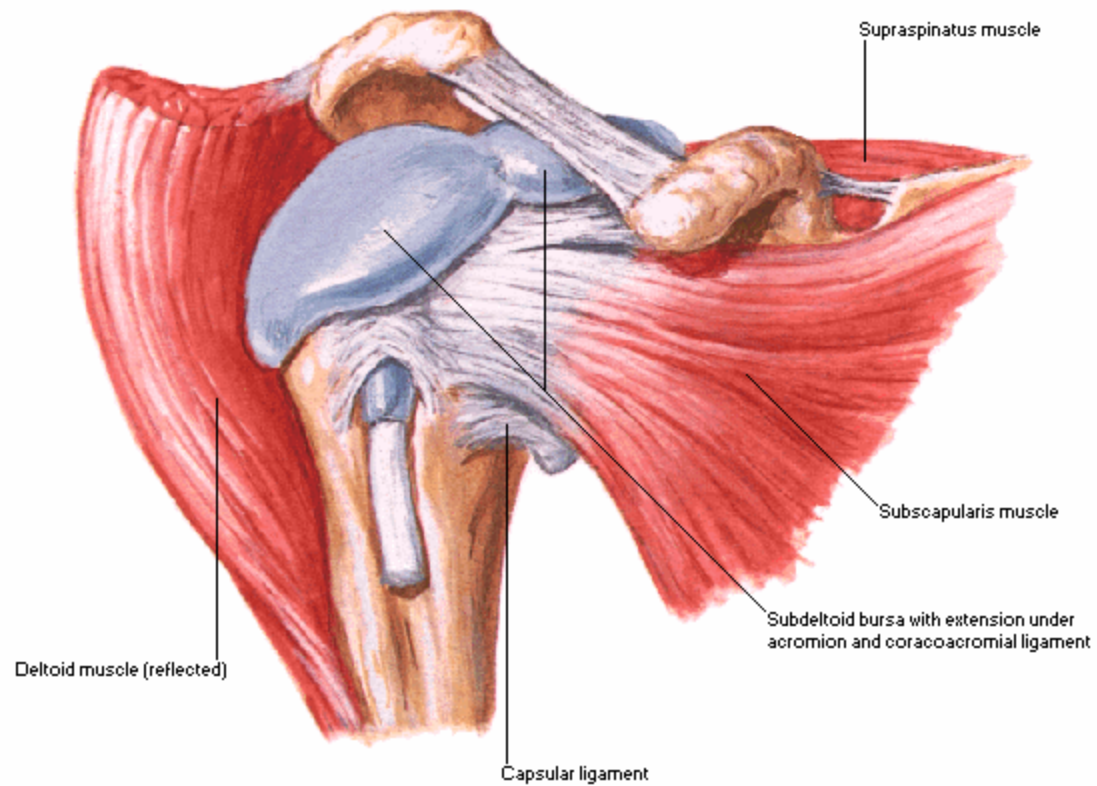
Posterior View - Muscle Attachments



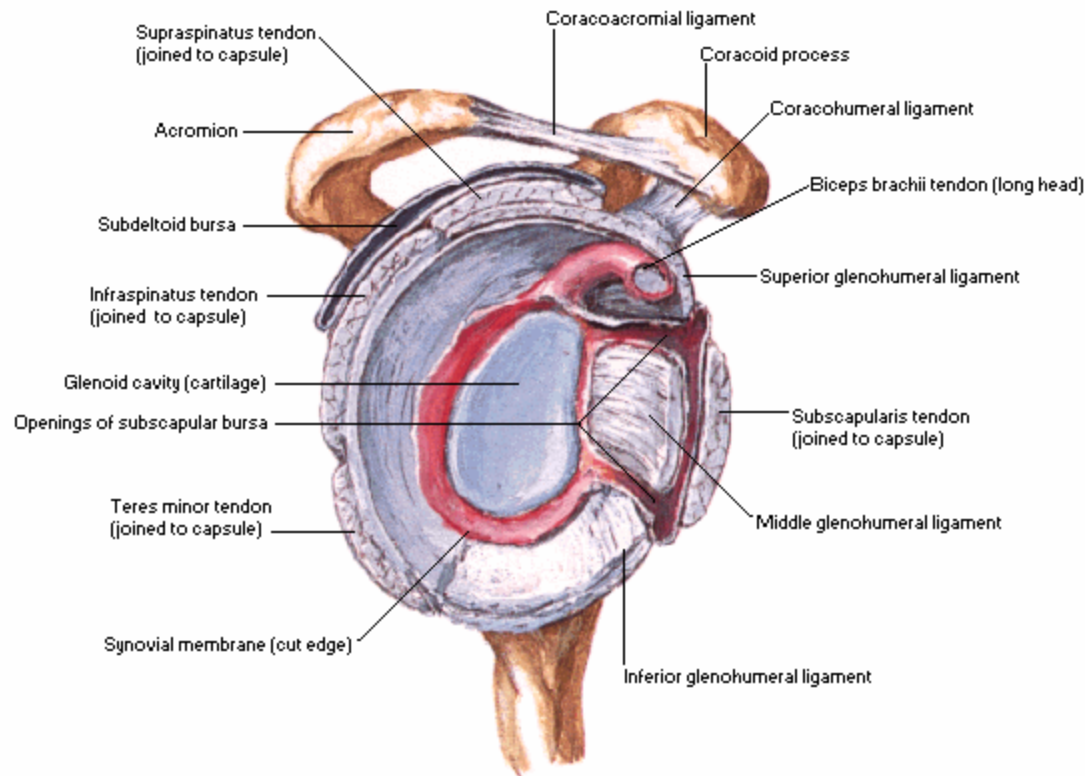
Anterior View - Tendons and Ligaments



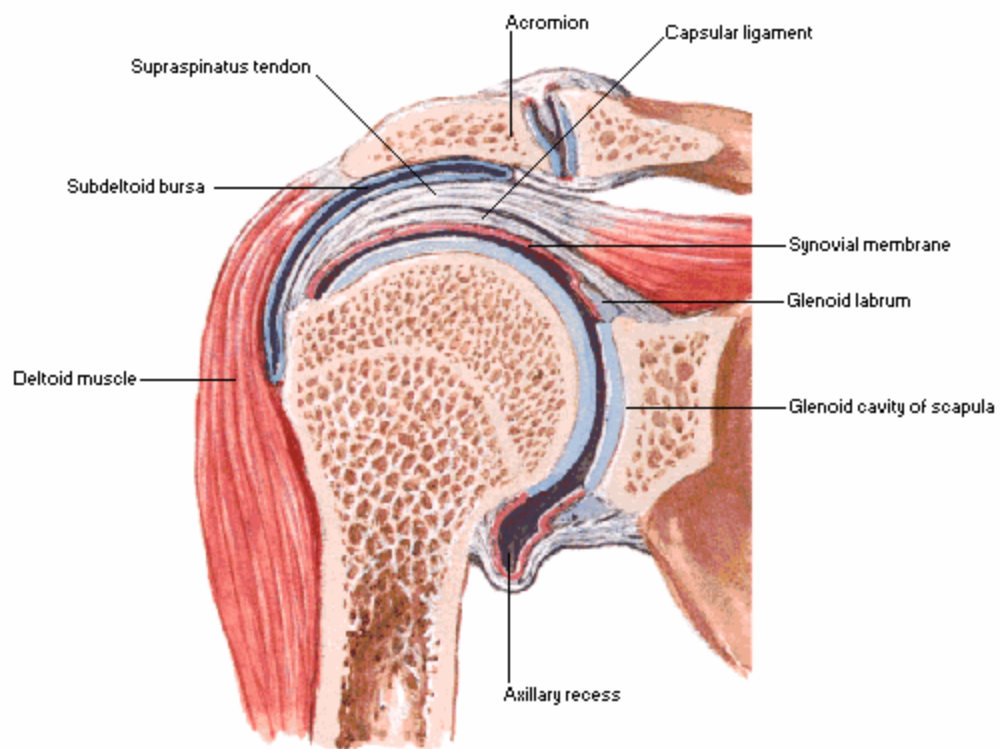
Anterior View - Supporting Muscles



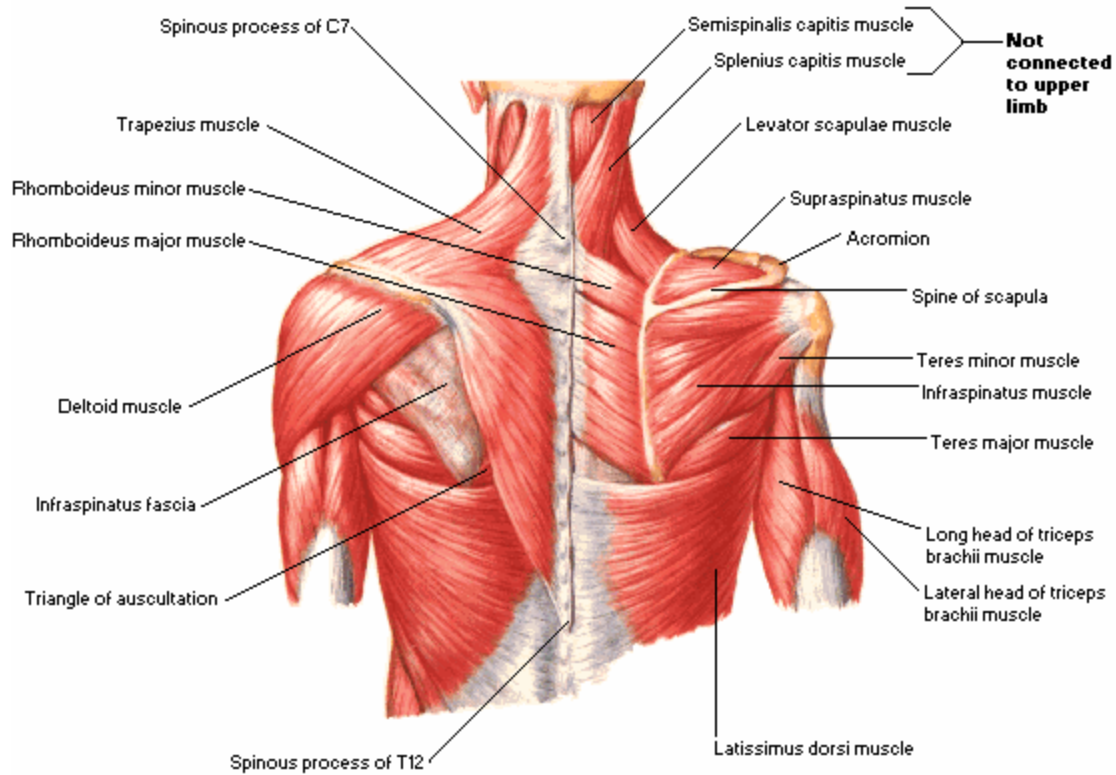
Lateral View



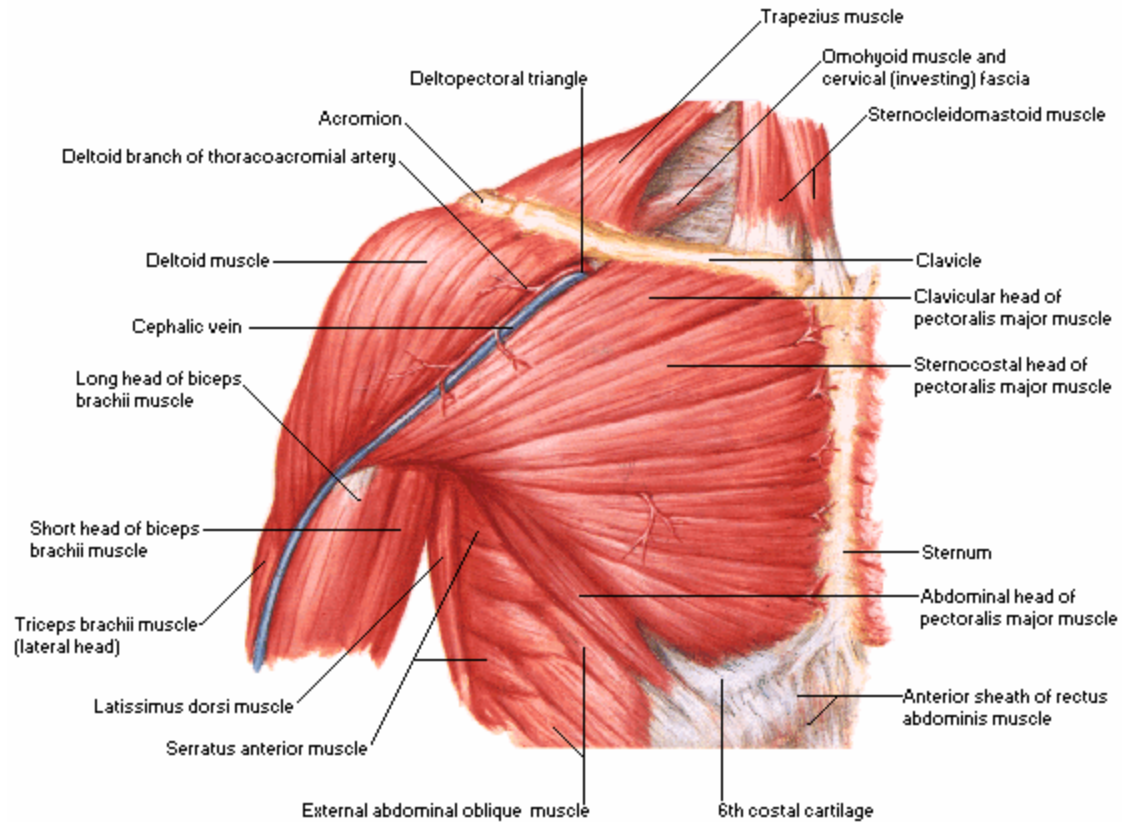
Coronal Section through Joint



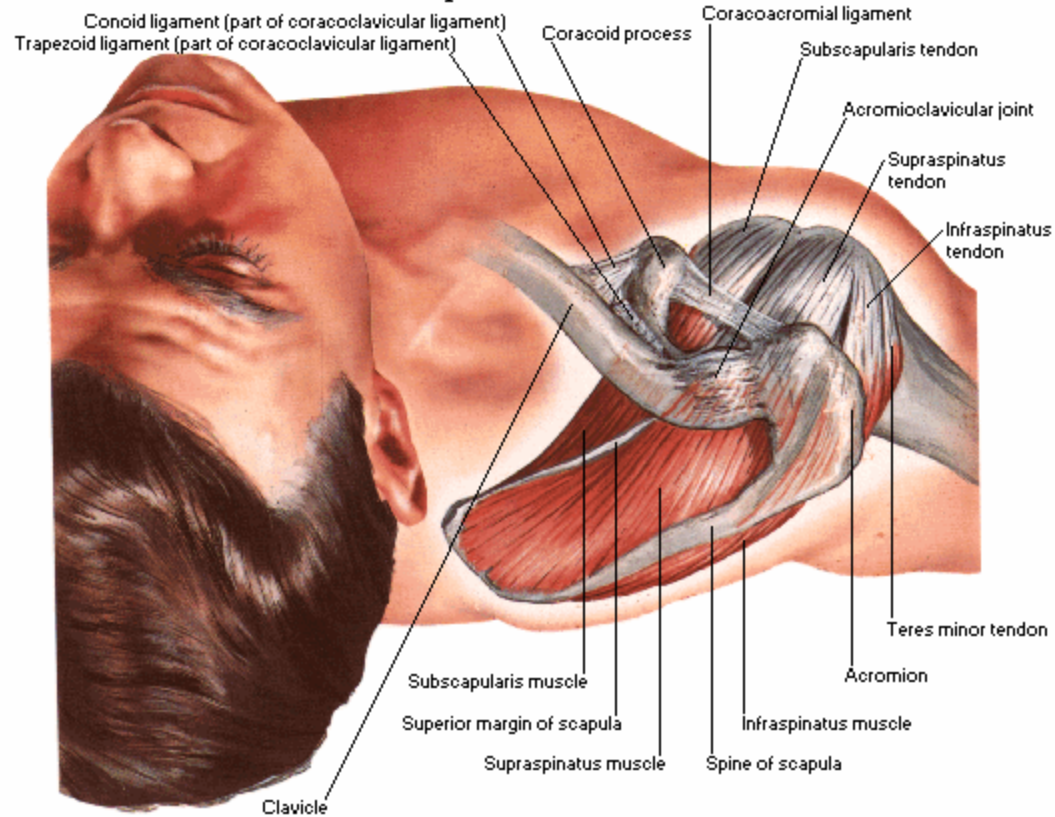
Posterior View



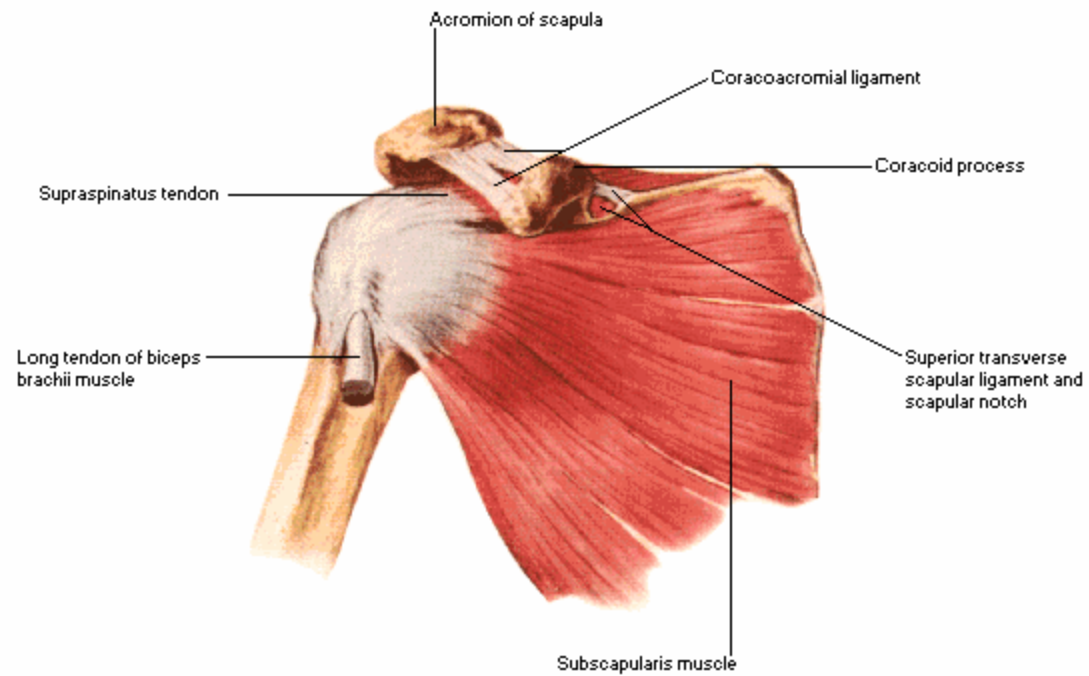
Anterior View



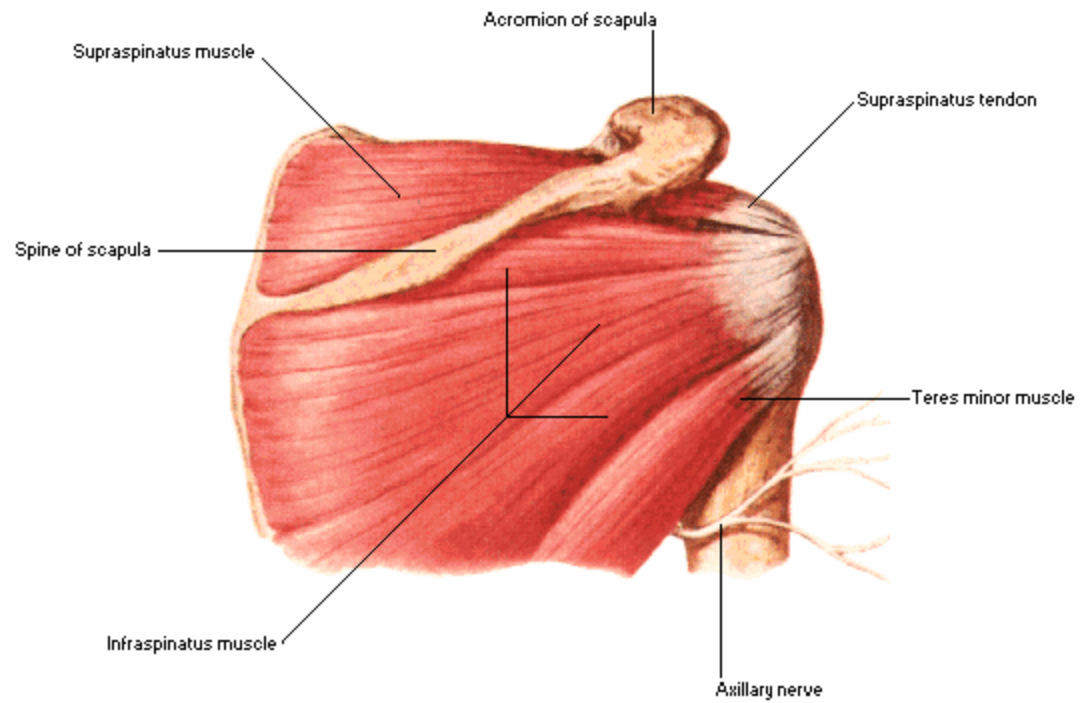
Superior View



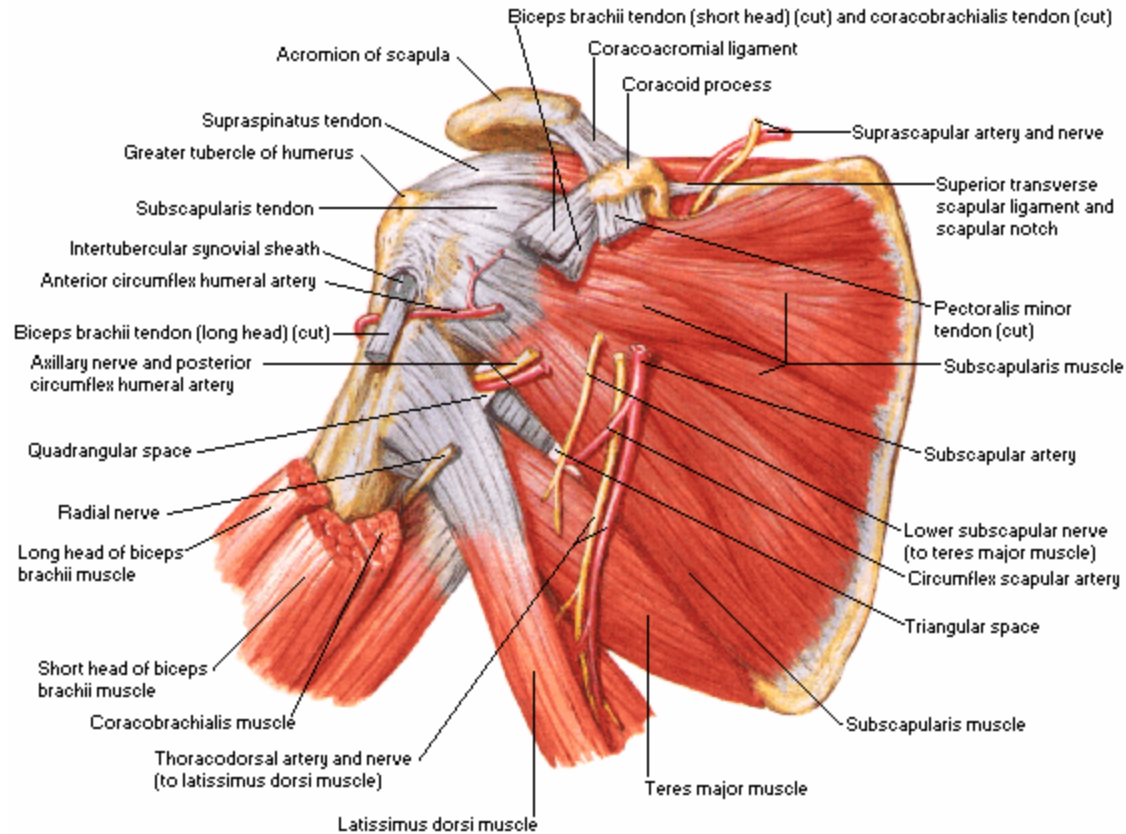
Anterior View



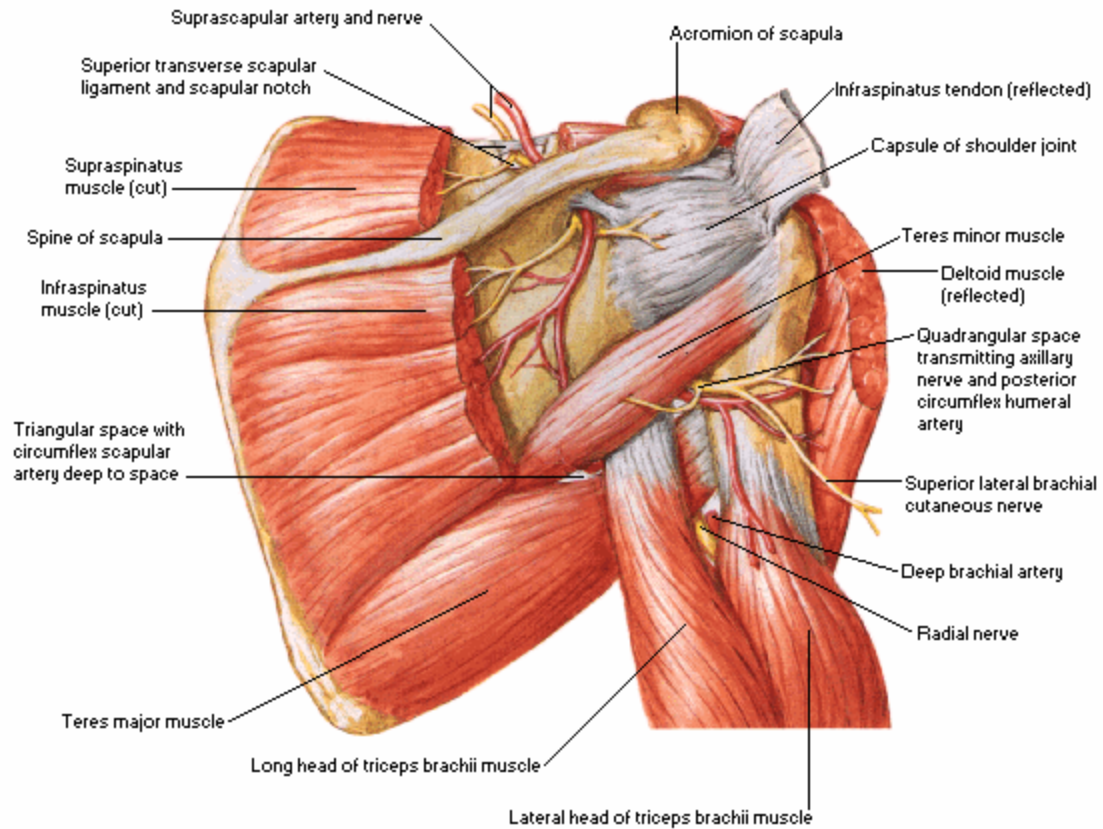
Posterior View



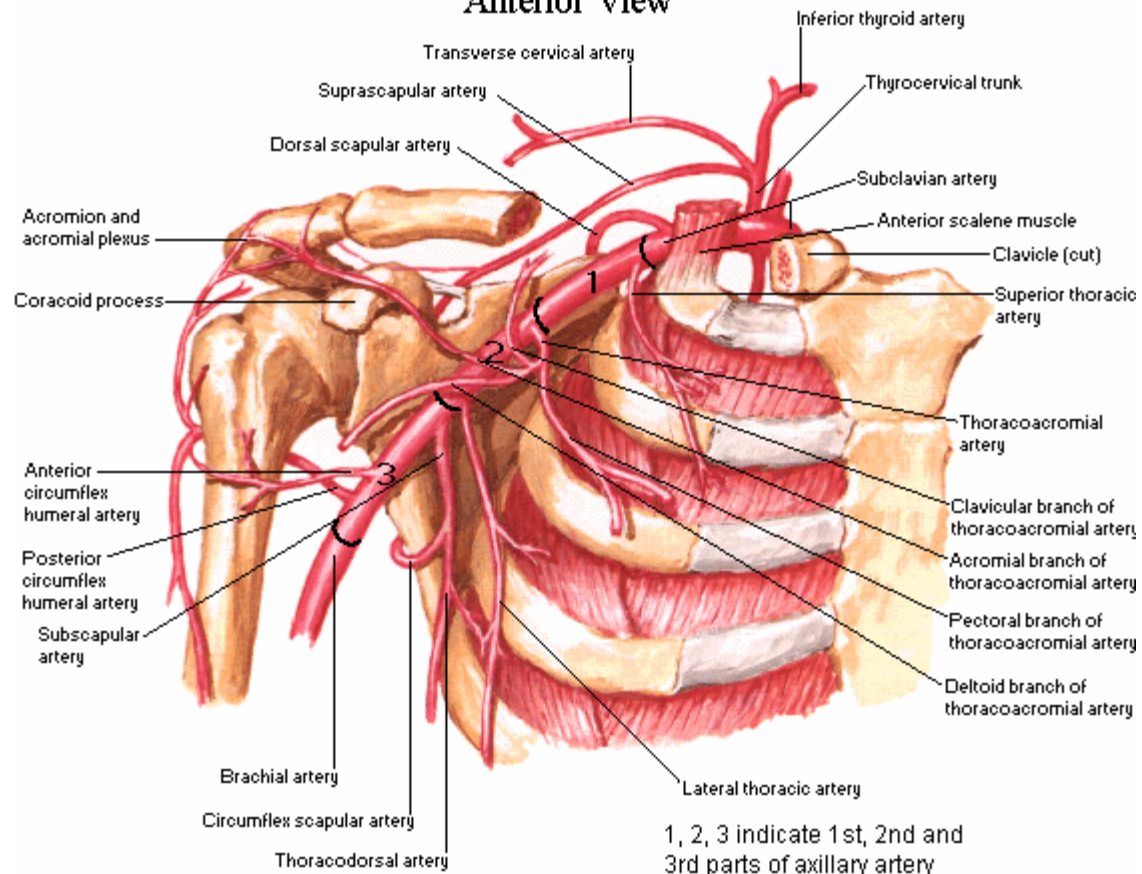
Anterior View



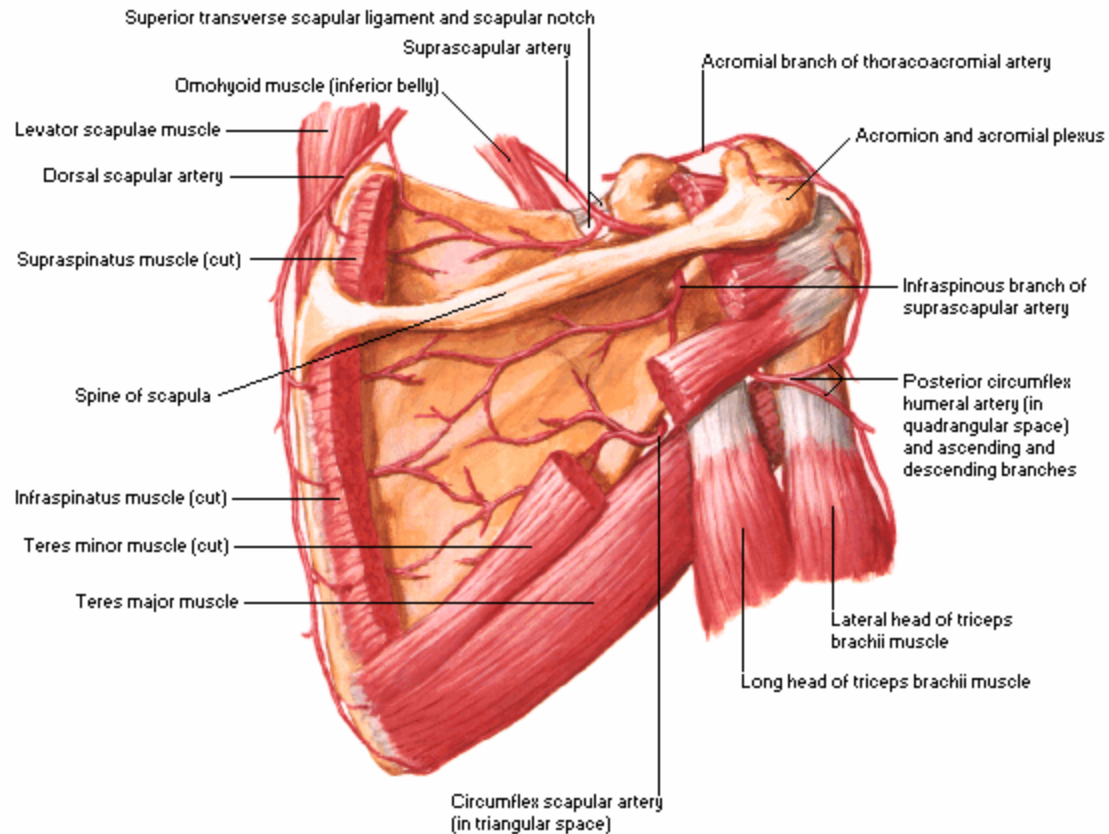
Posterior View



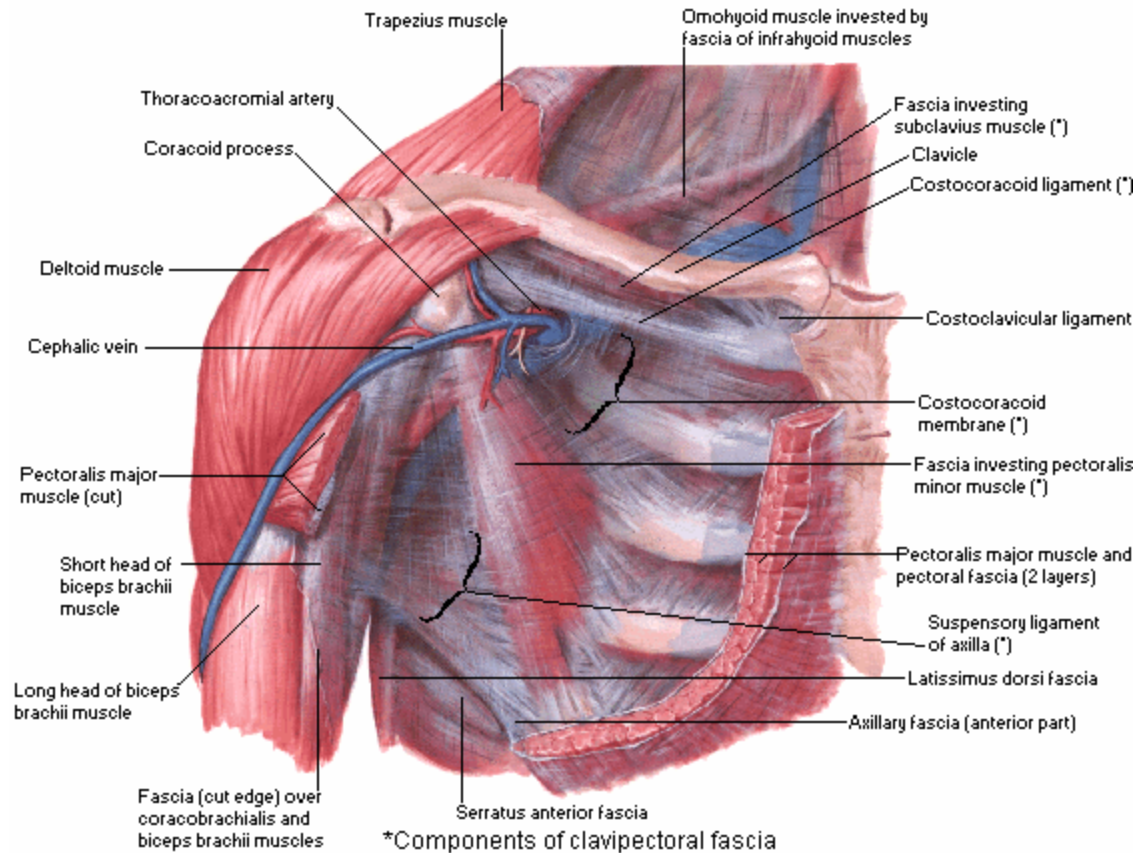
Anterior View



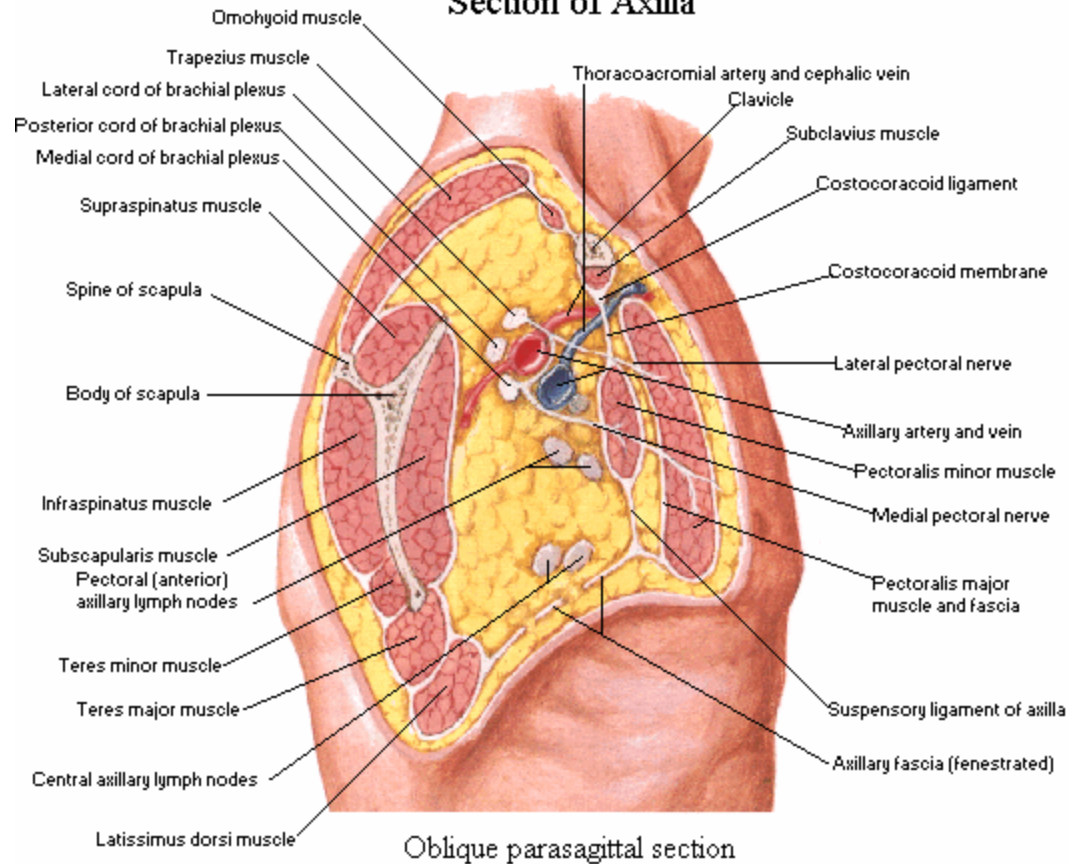
Posterior View

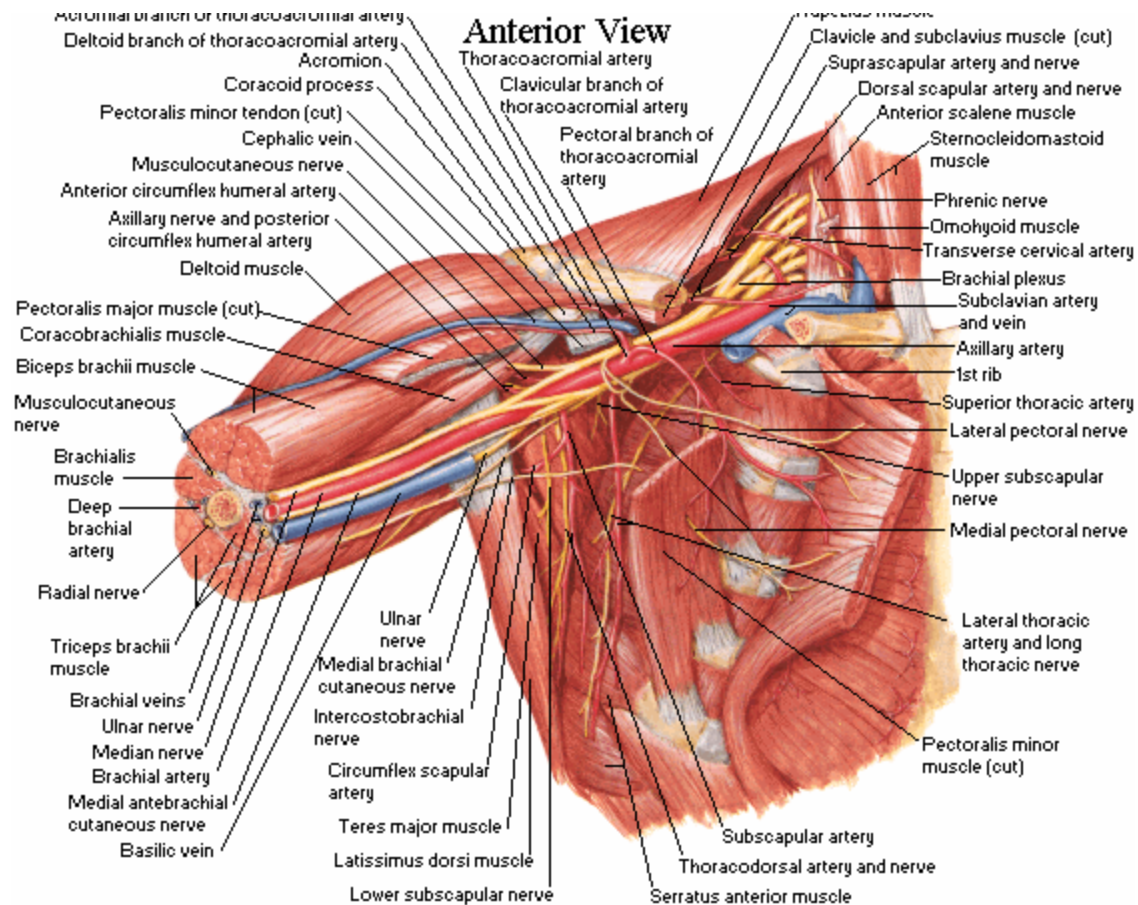


Anterior View

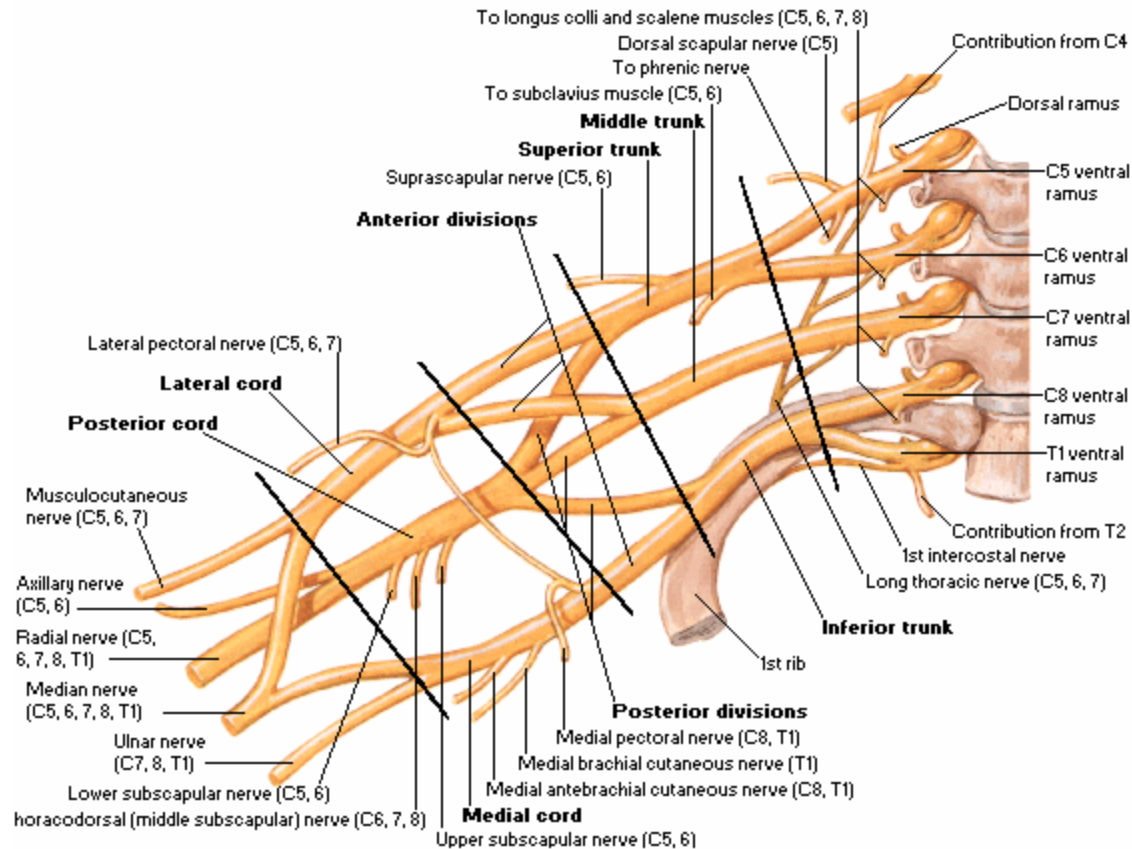


Section of Axilla

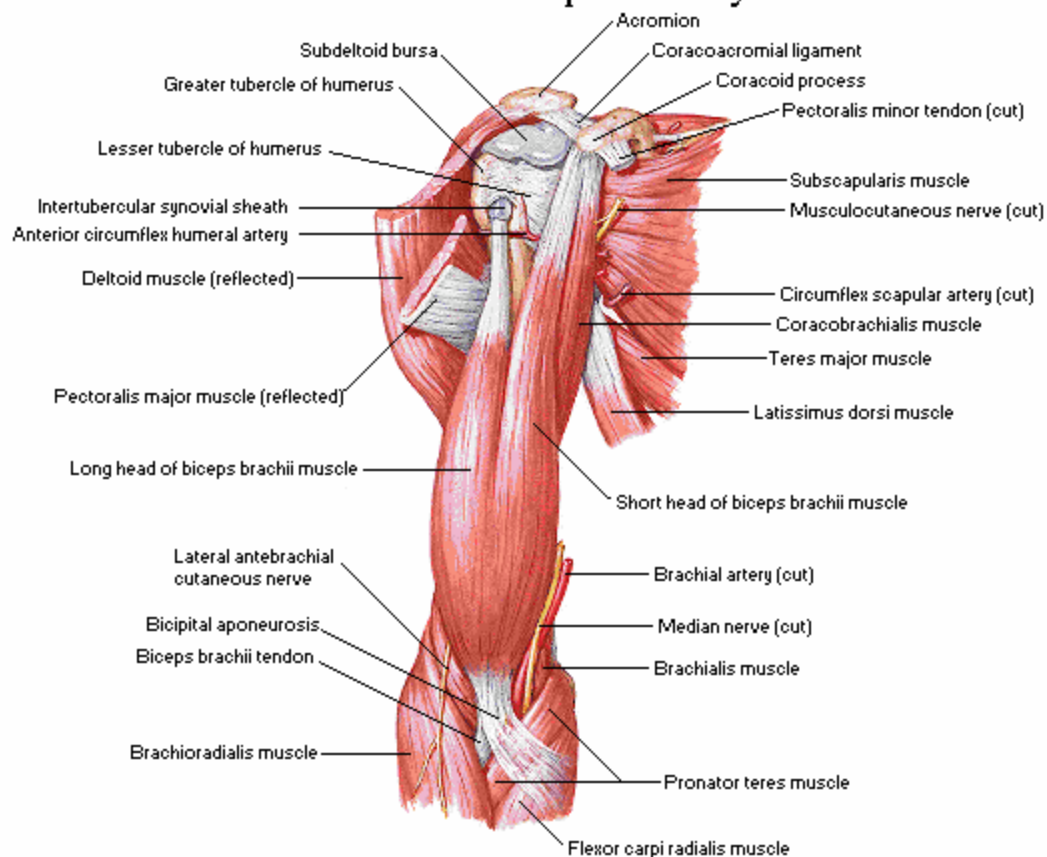




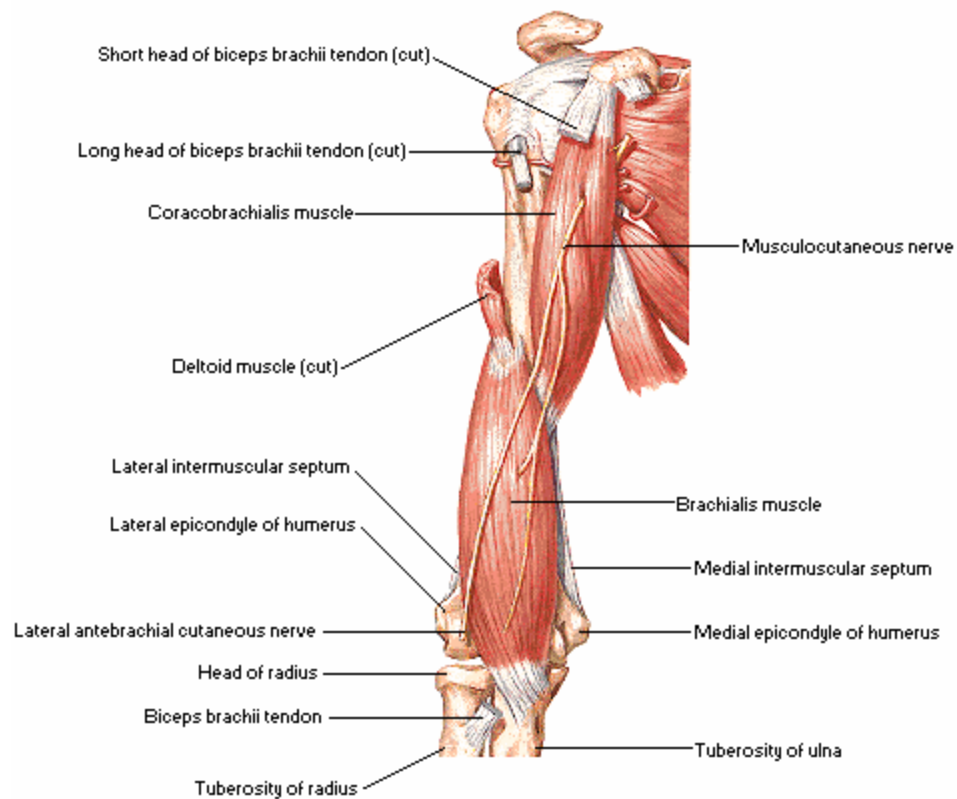
Schema



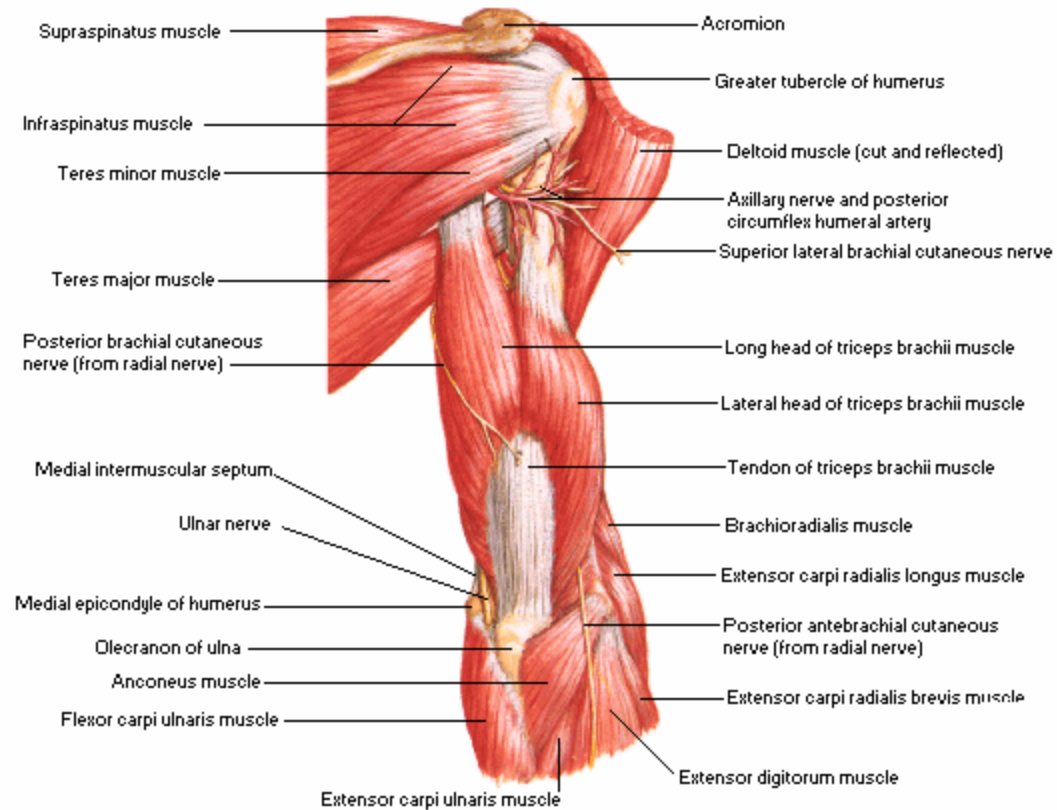
Anterior View - Superficial Layer



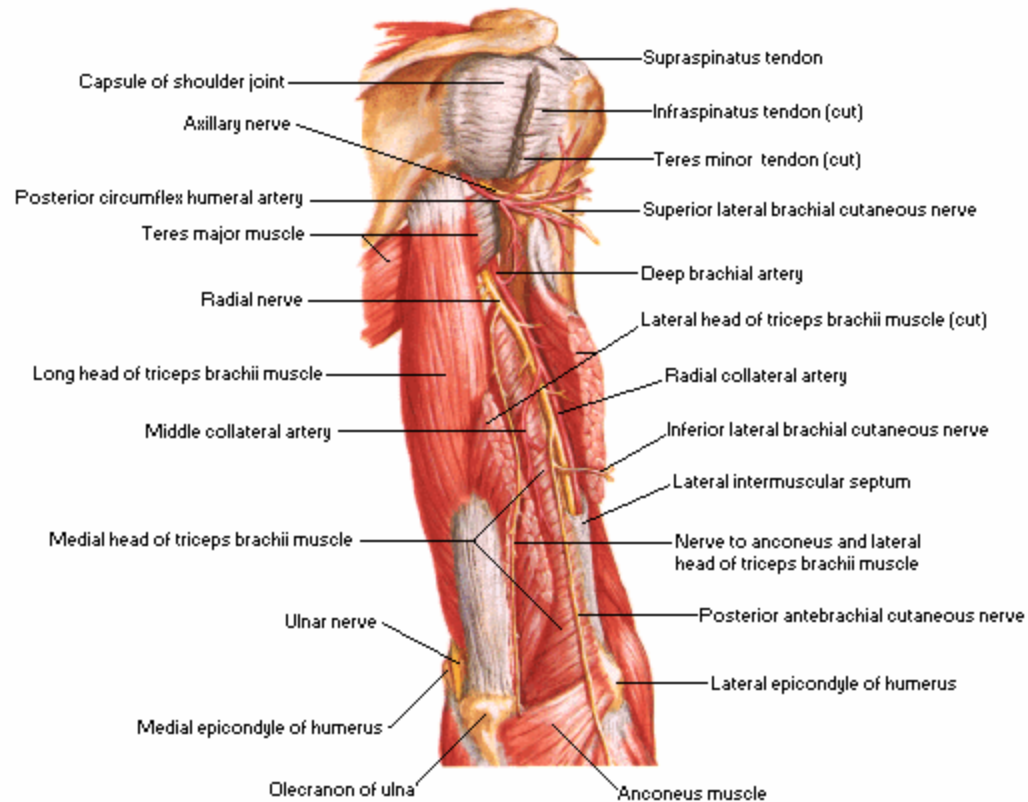
Anterior View - Deep Layer

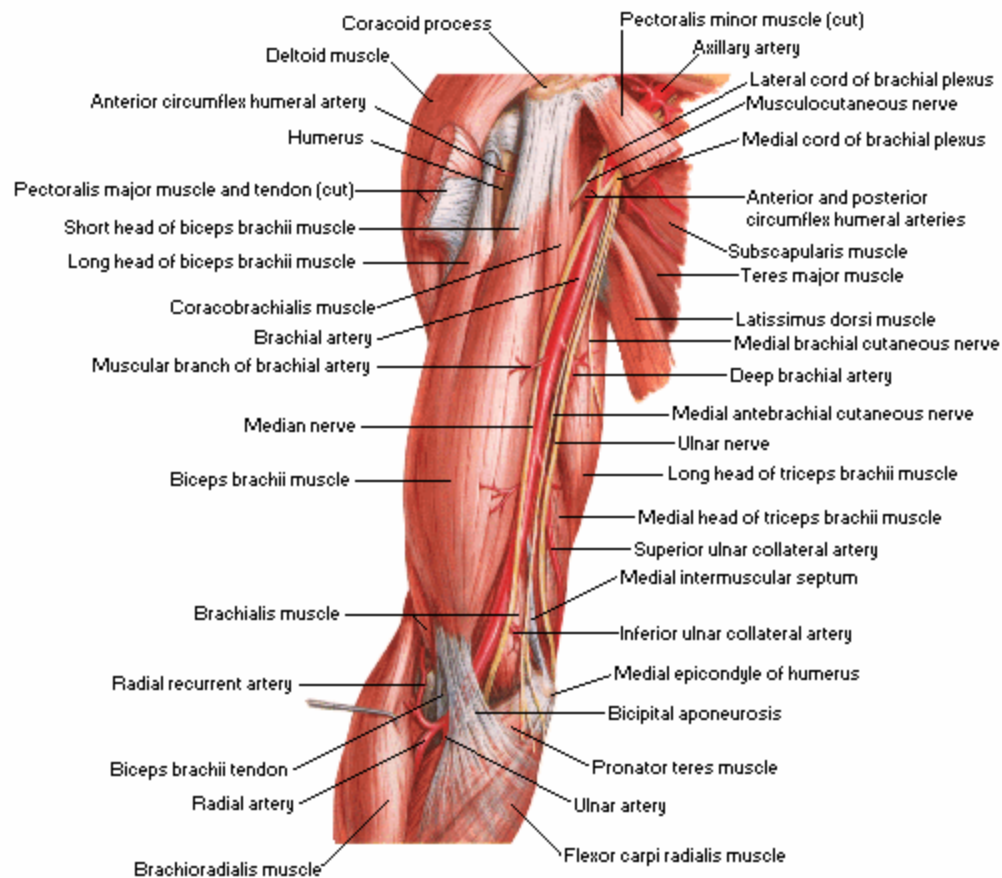


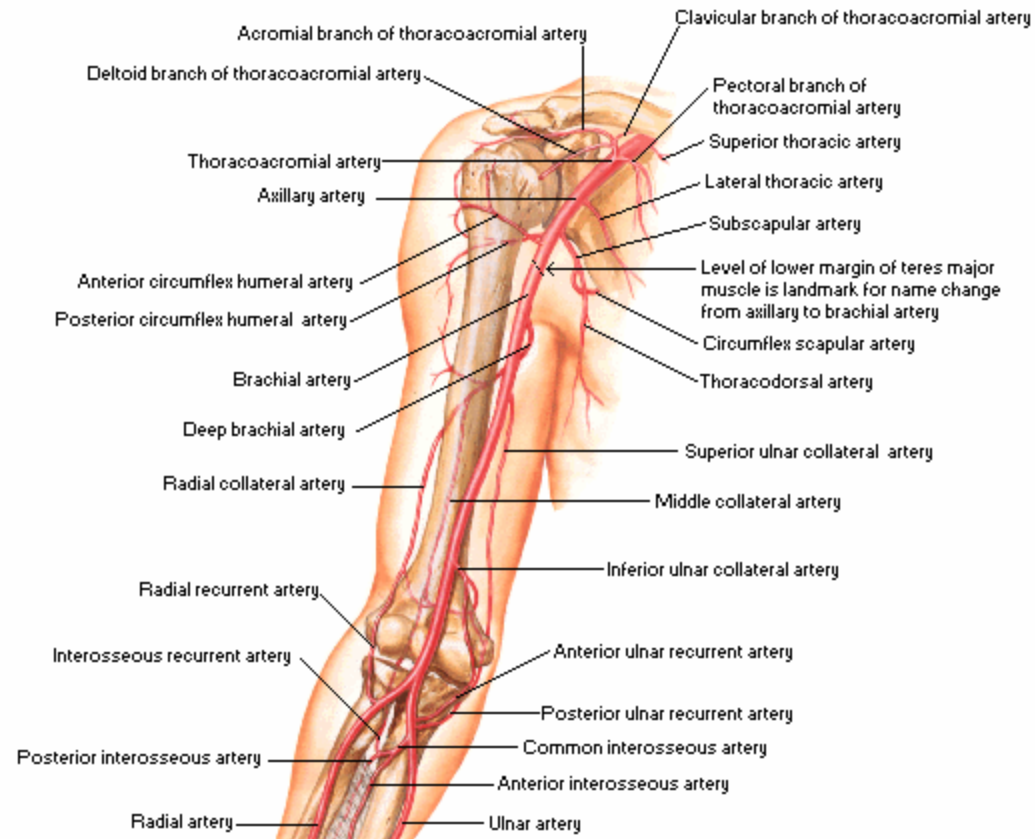
Posterior View - Superficial Layer



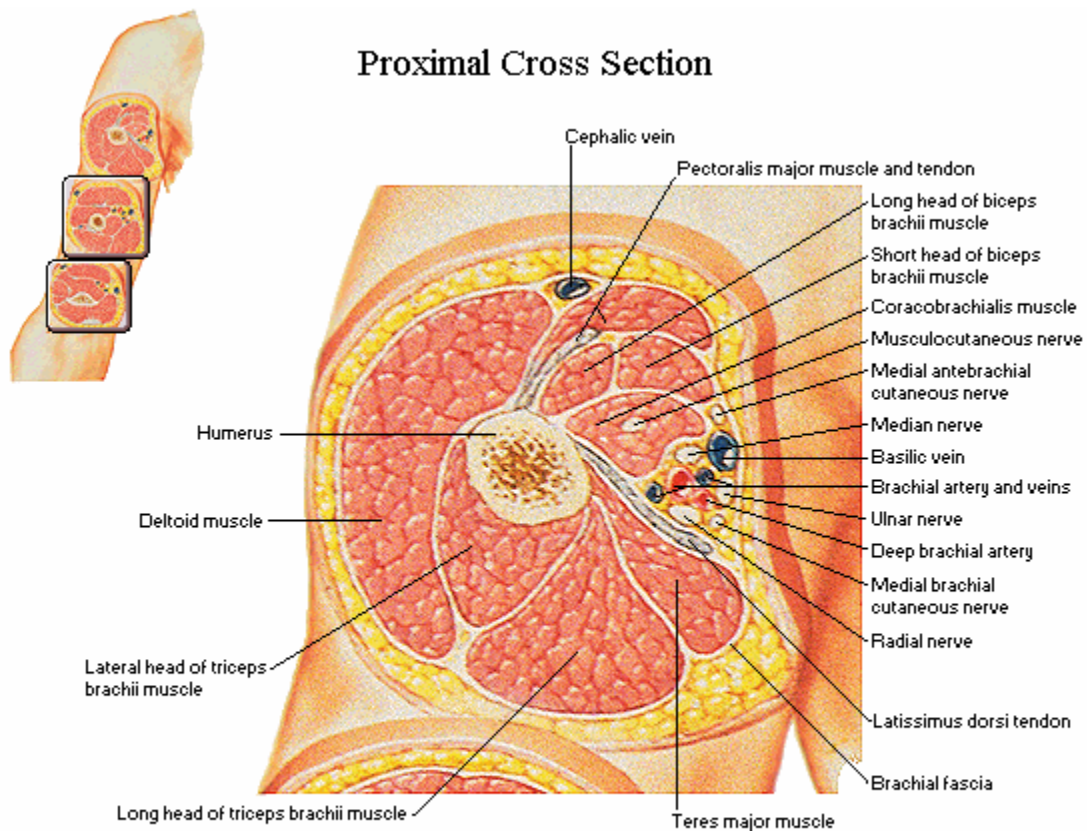
Posterior View - Deep Layer





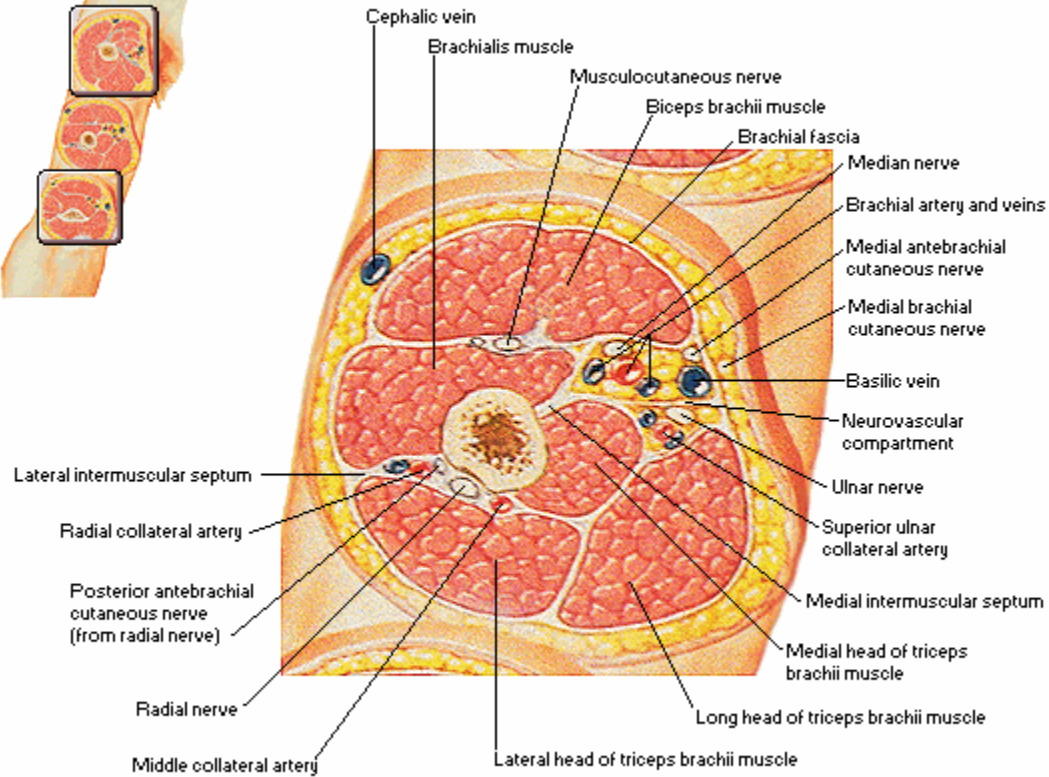


Proximal Cross Section

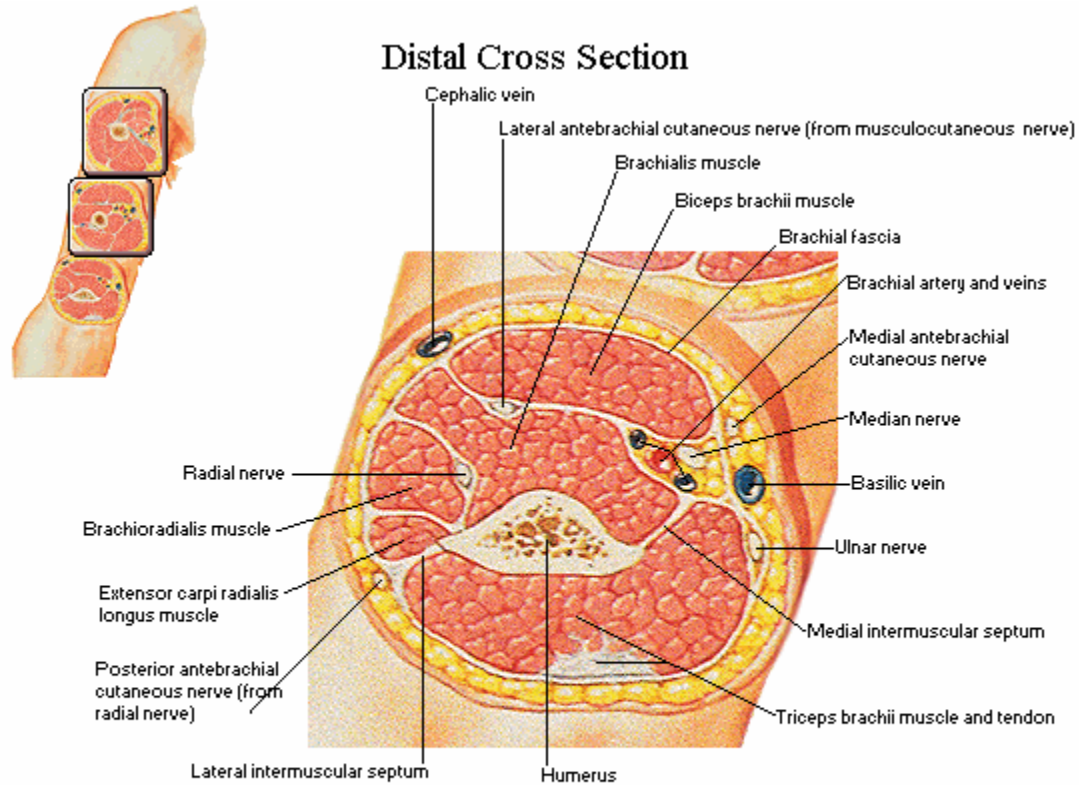




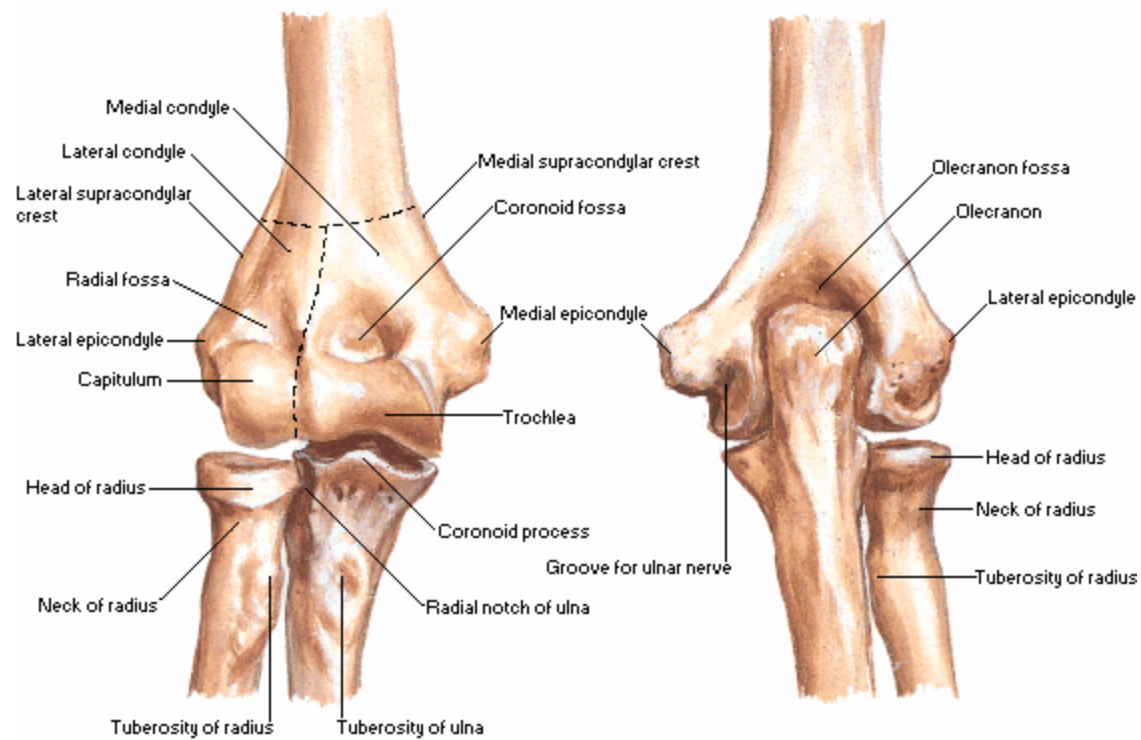
Middle Cross Section



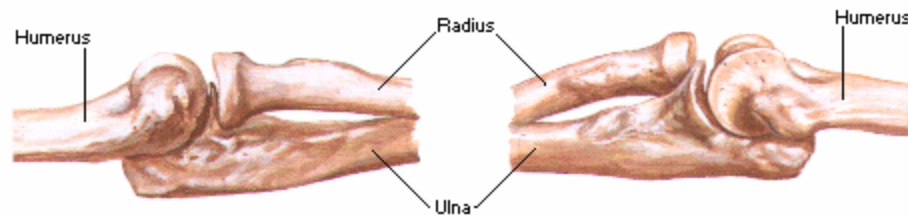
Distal Cross Section



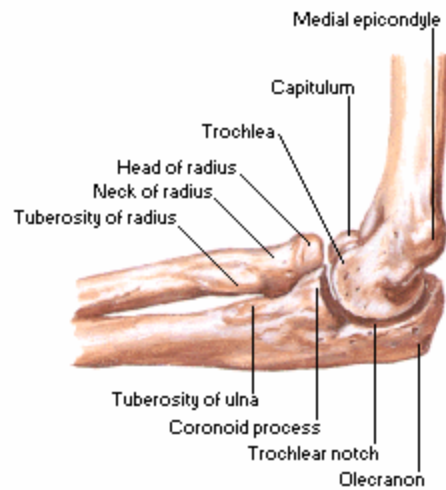
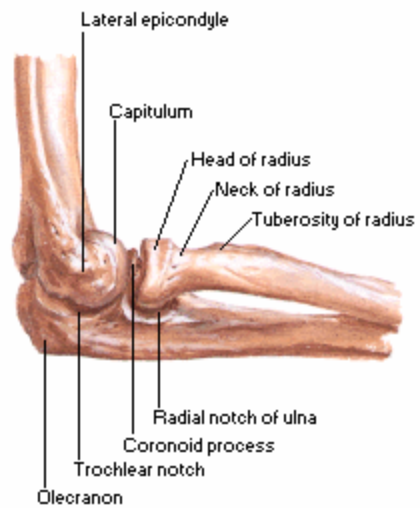
Anterior and Posterior Views



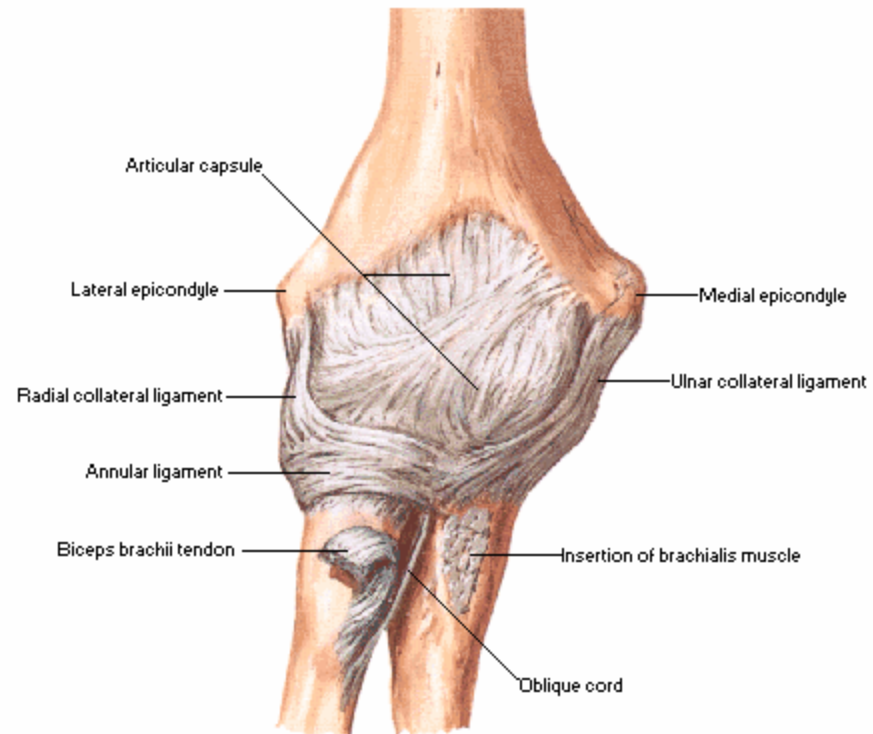
Lateral and Medial Views



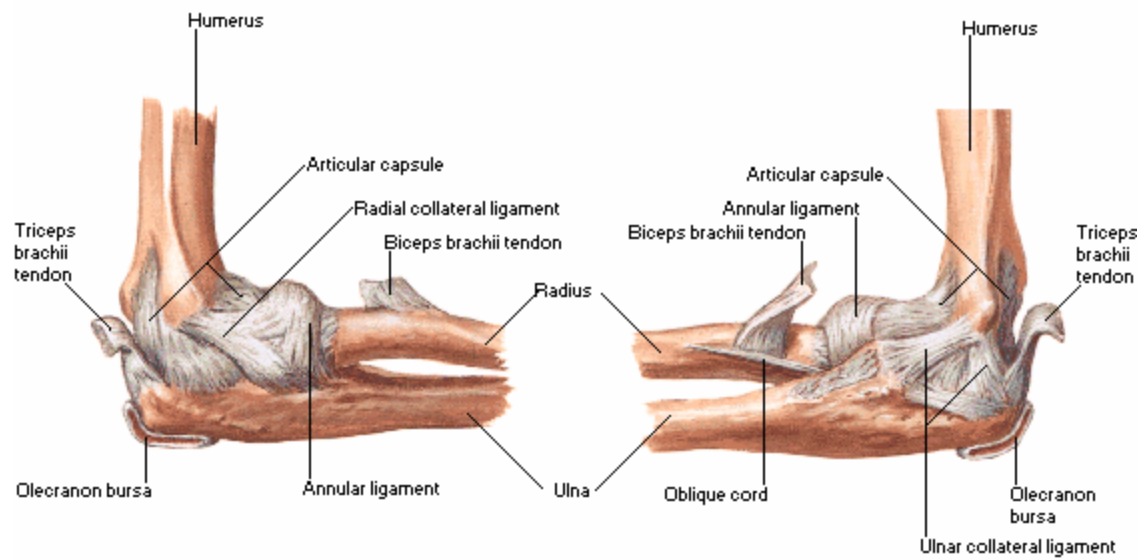
Lateral and Medial Views



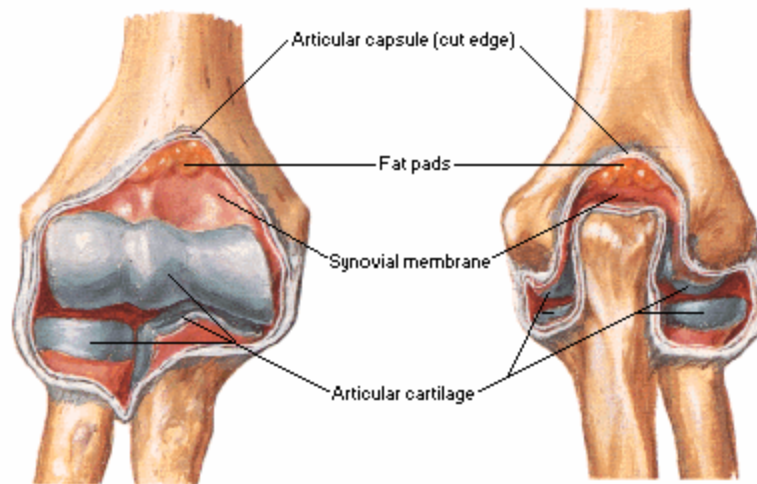
Right Elbow - Anterior View



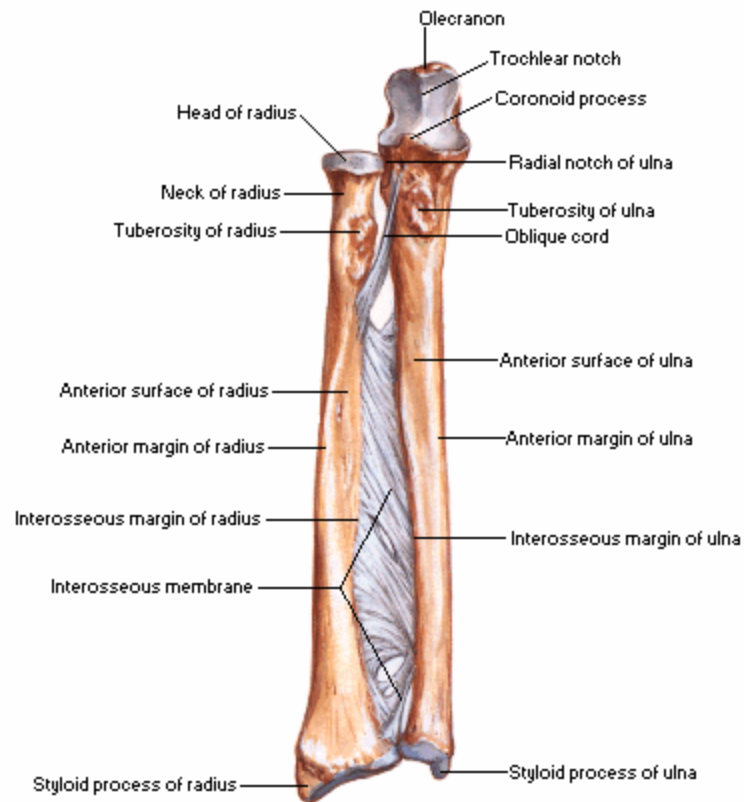
Lateral and Medial Views



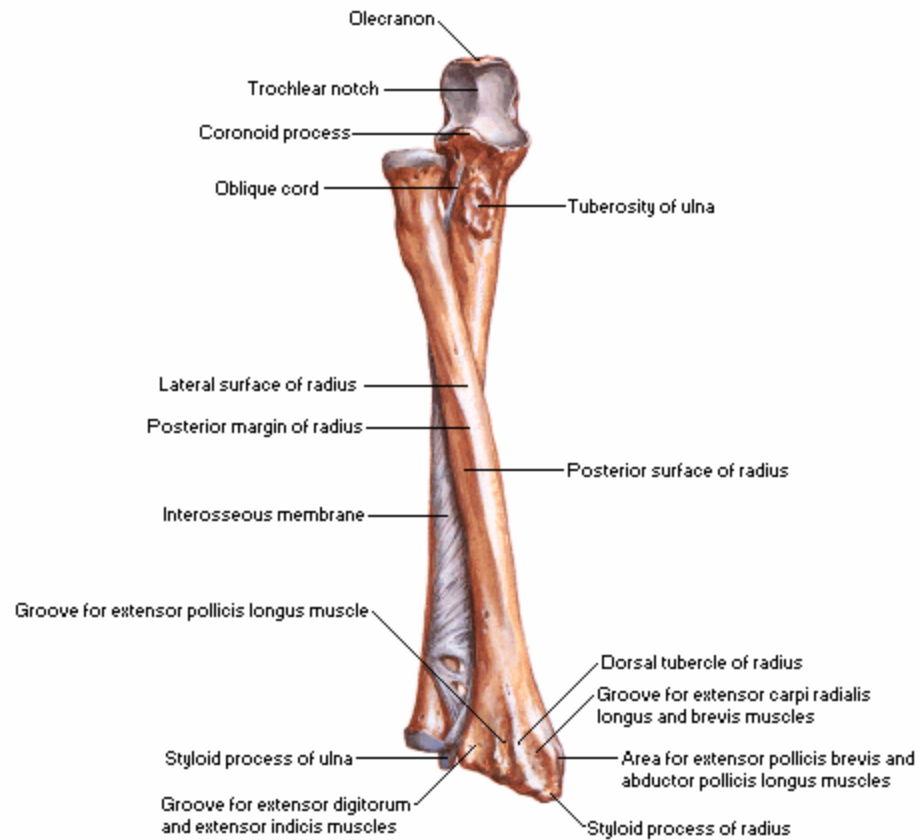
Anterior and Posterior Views



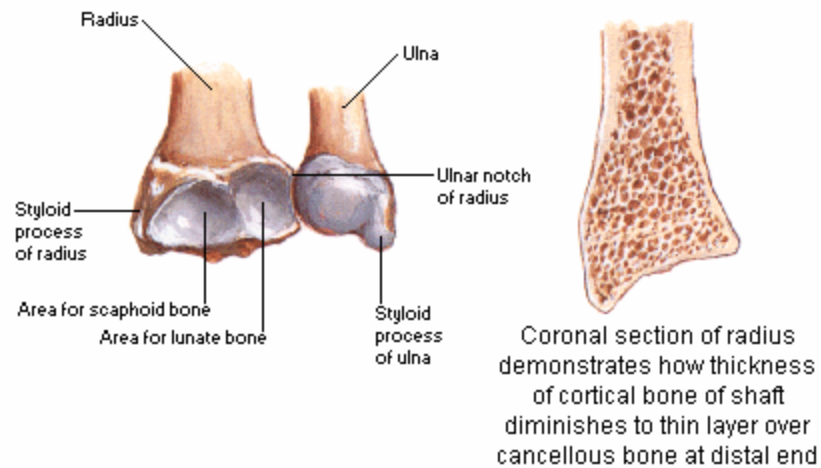
Anterior View



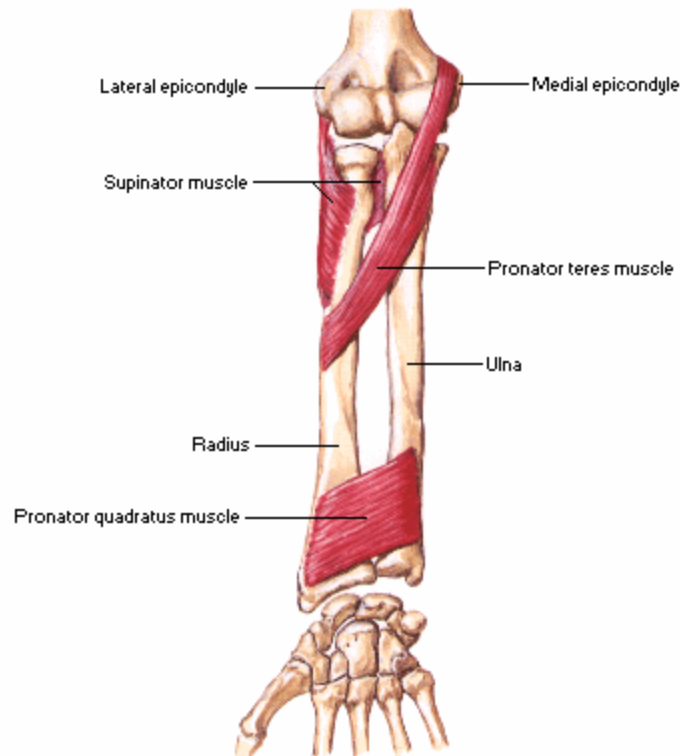
Anterior View



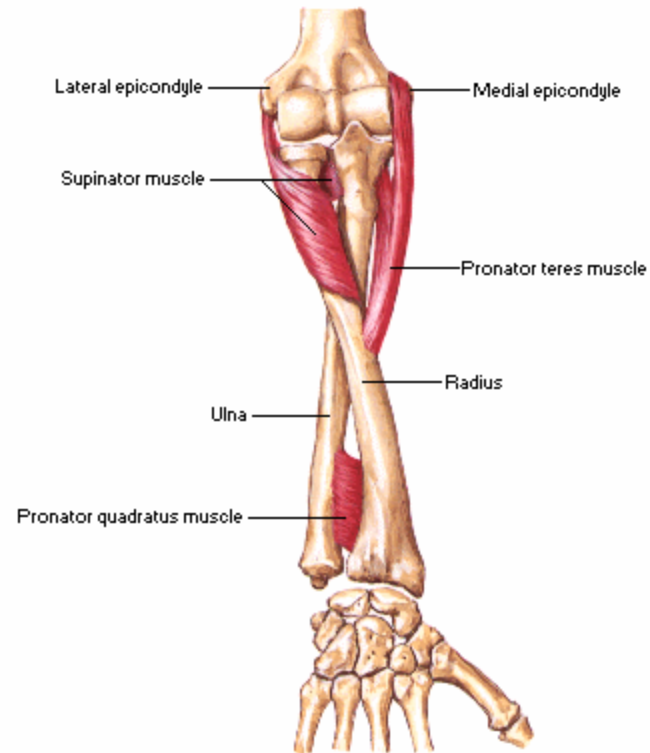
Carpal Articular Surface and Section of Radius



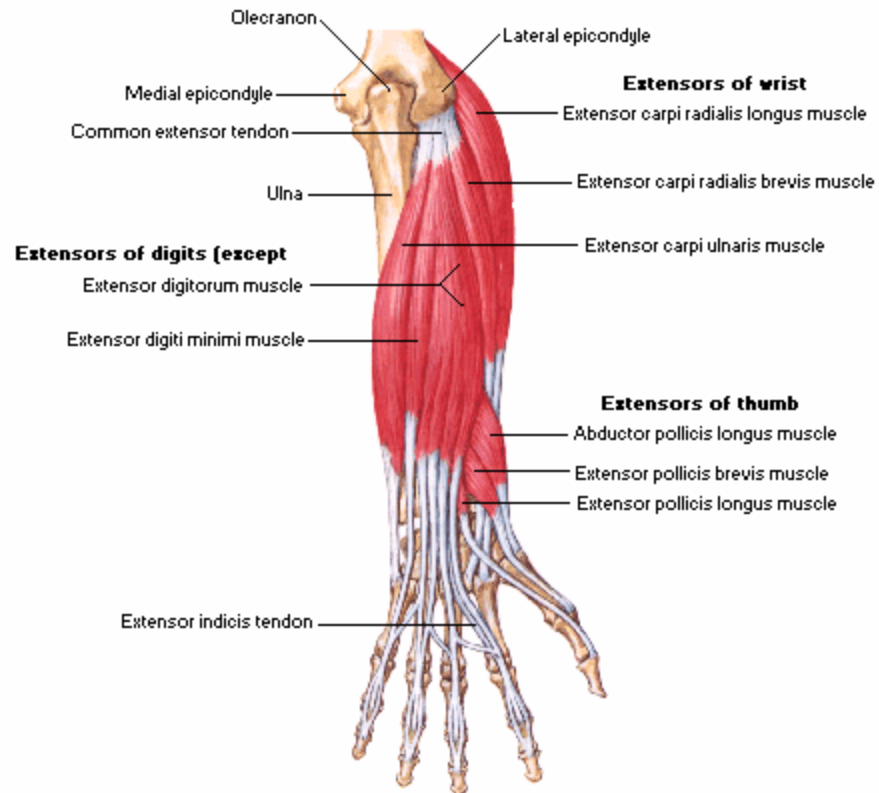
Rotators of Radius - Supination



Rotators of Radius - Pronation

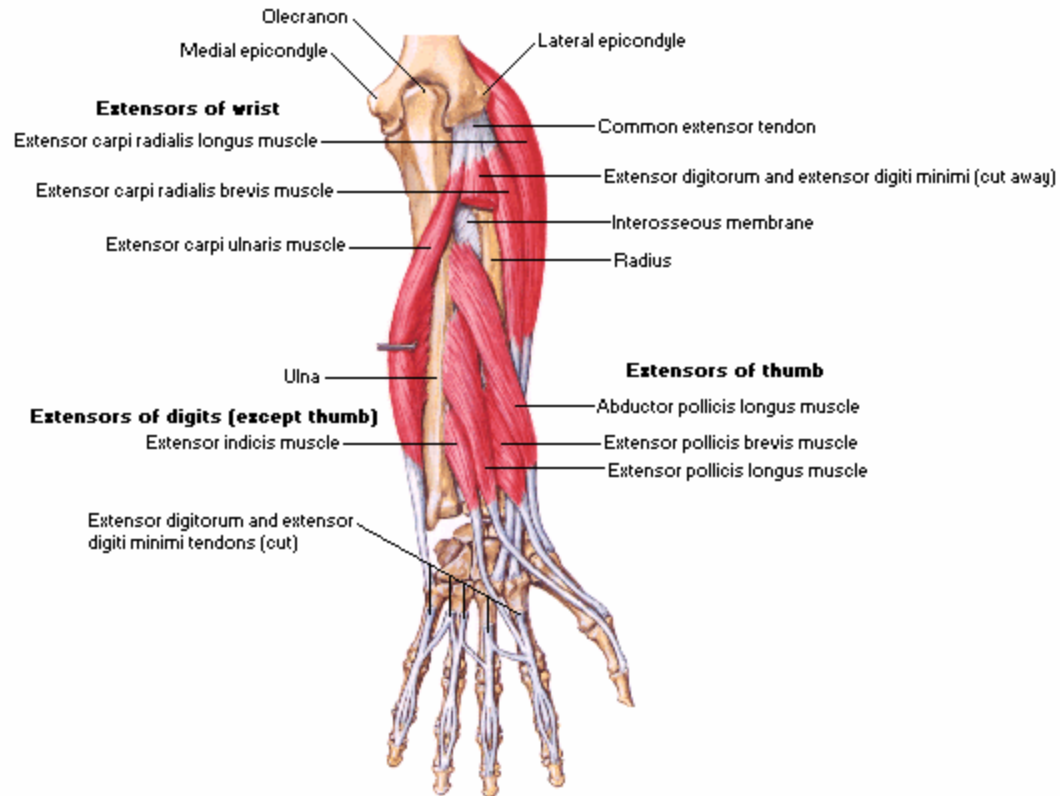


Extensors of Wrist and Digits



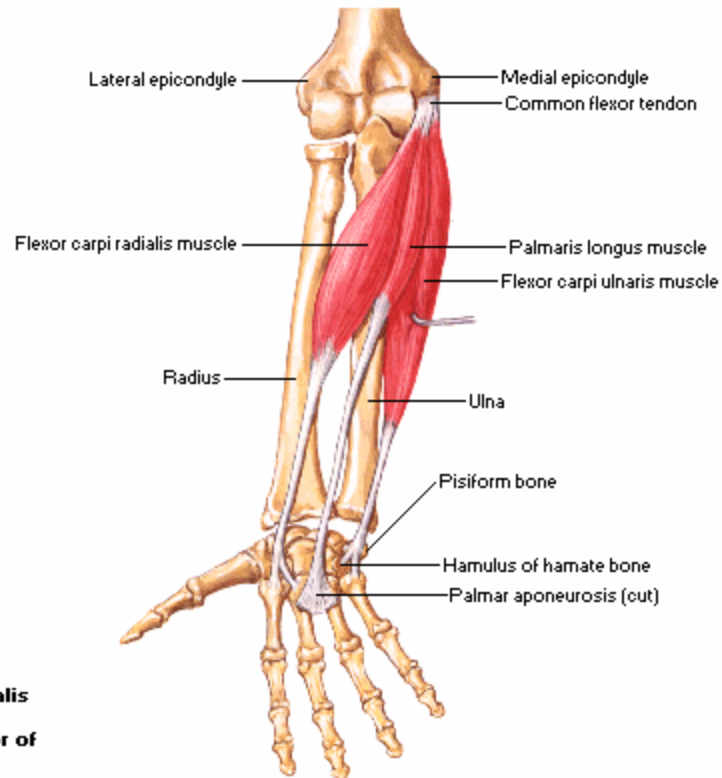
Note: anconeus muscle not shown because it is extensor of elbow

Extensors of Wrist and Digits



Note: anconeus muscle not shown because it is extensor of elbow

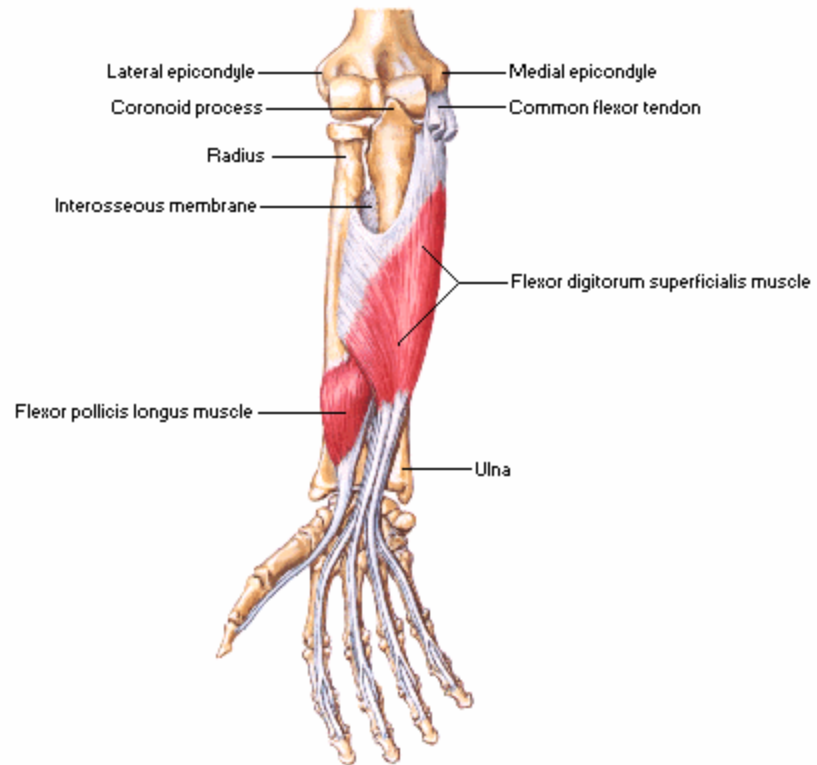
Flexors of Wrist



**Note: brachioradialis
muscle not shown
because it is flexor of**

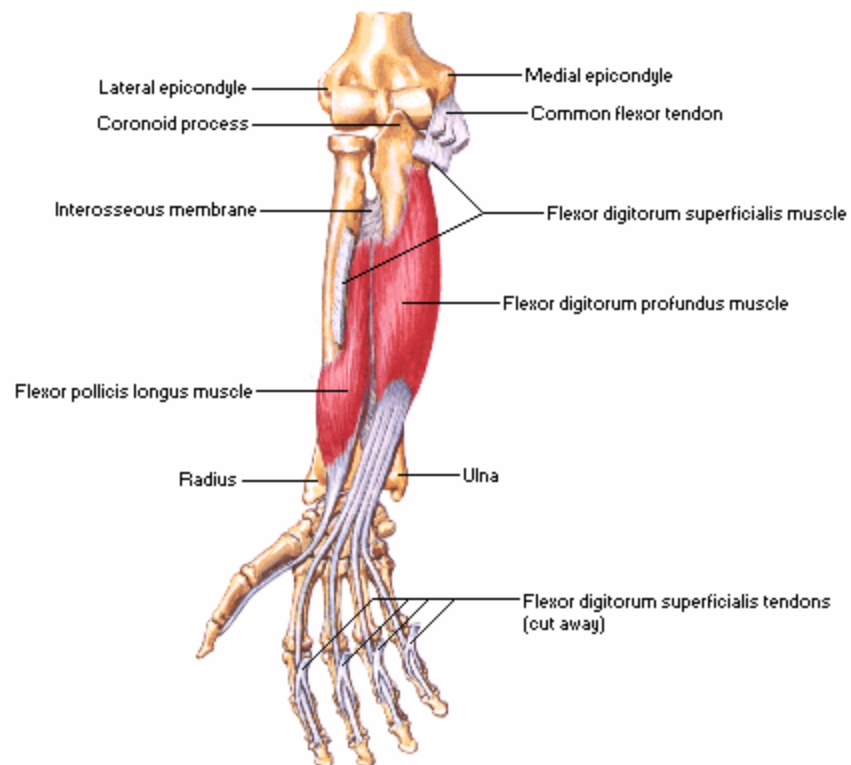
Right forearm: anterior (palmar) view

Flexors of Digits



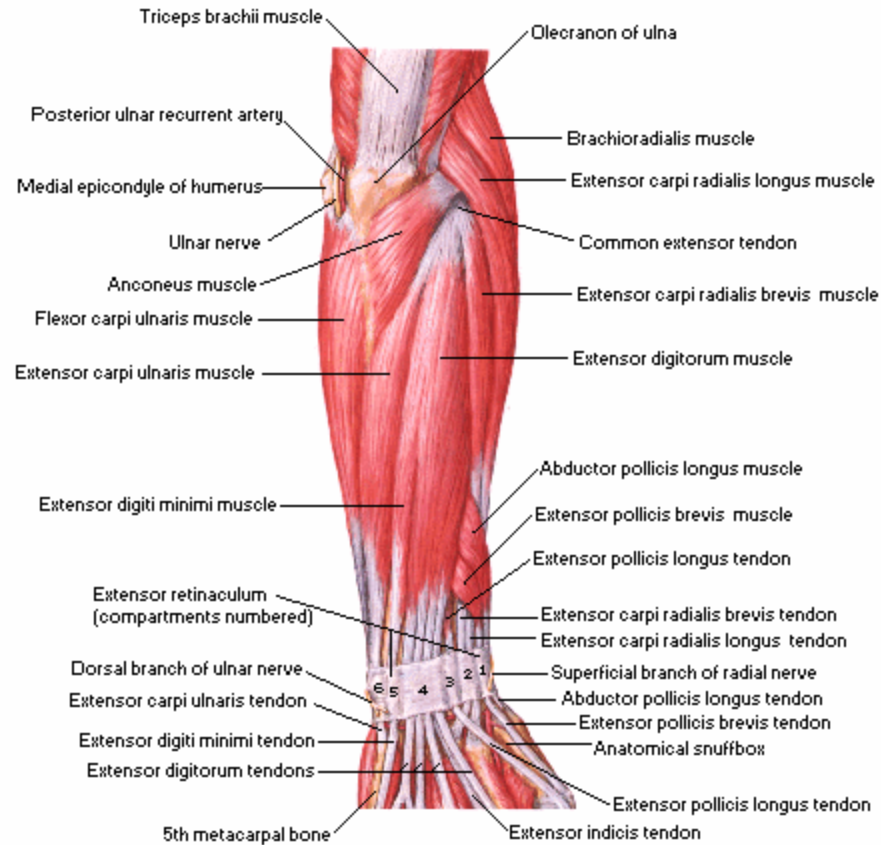
Right forearm: anterior (palmar) view

Flexors of Digits

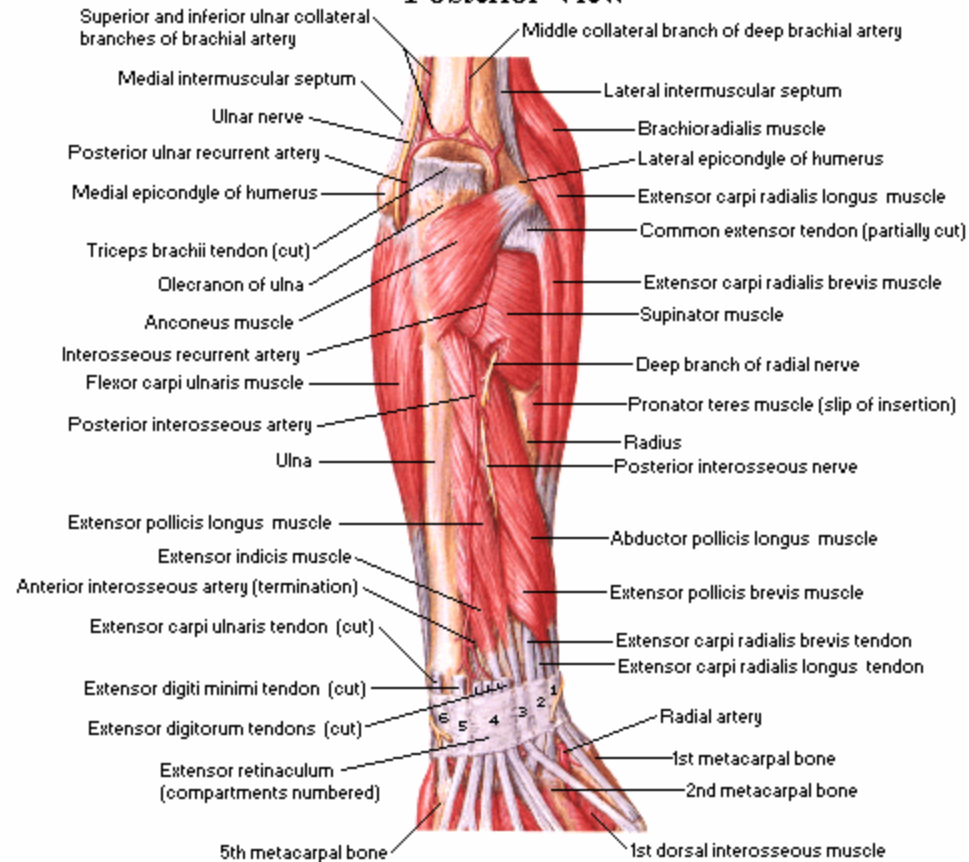


Right forearm: anterior (palmar) view

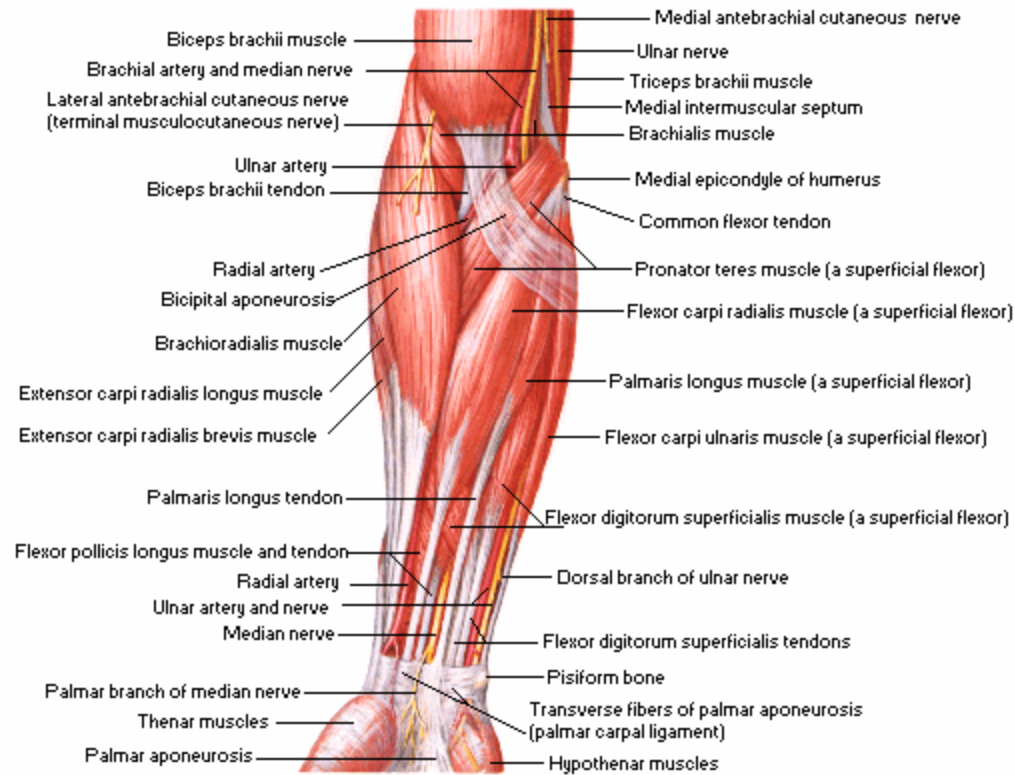
Posterior View



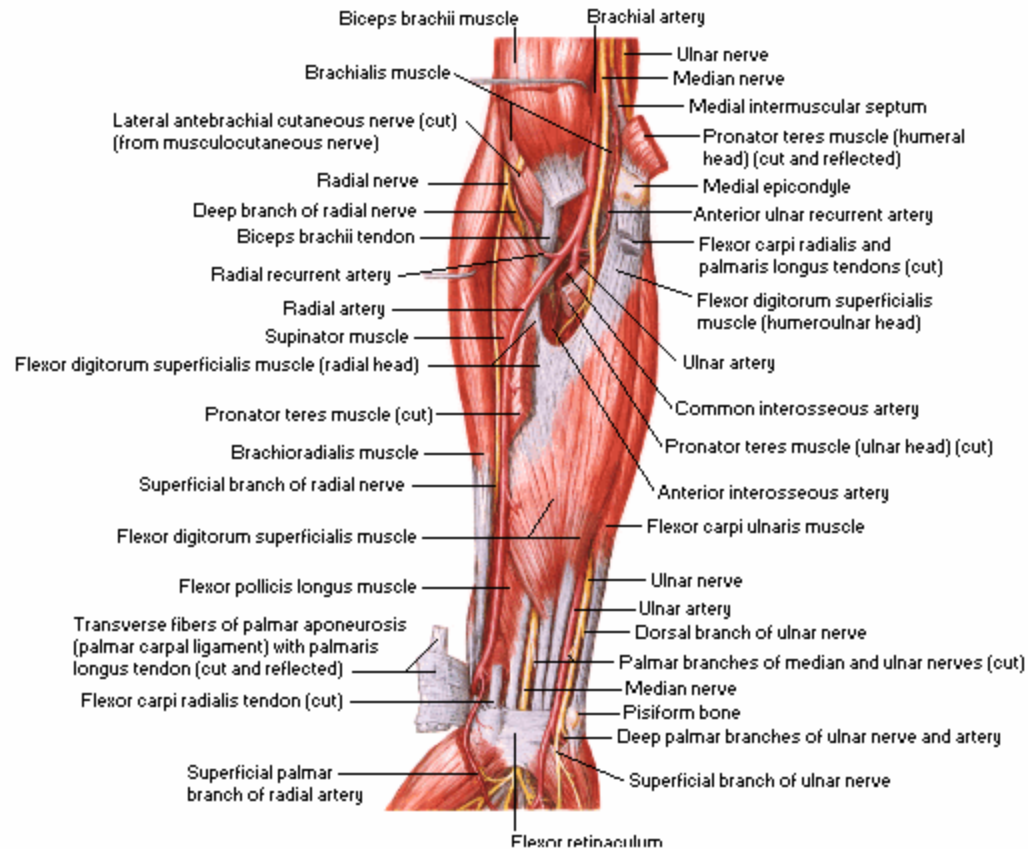
Posterior View



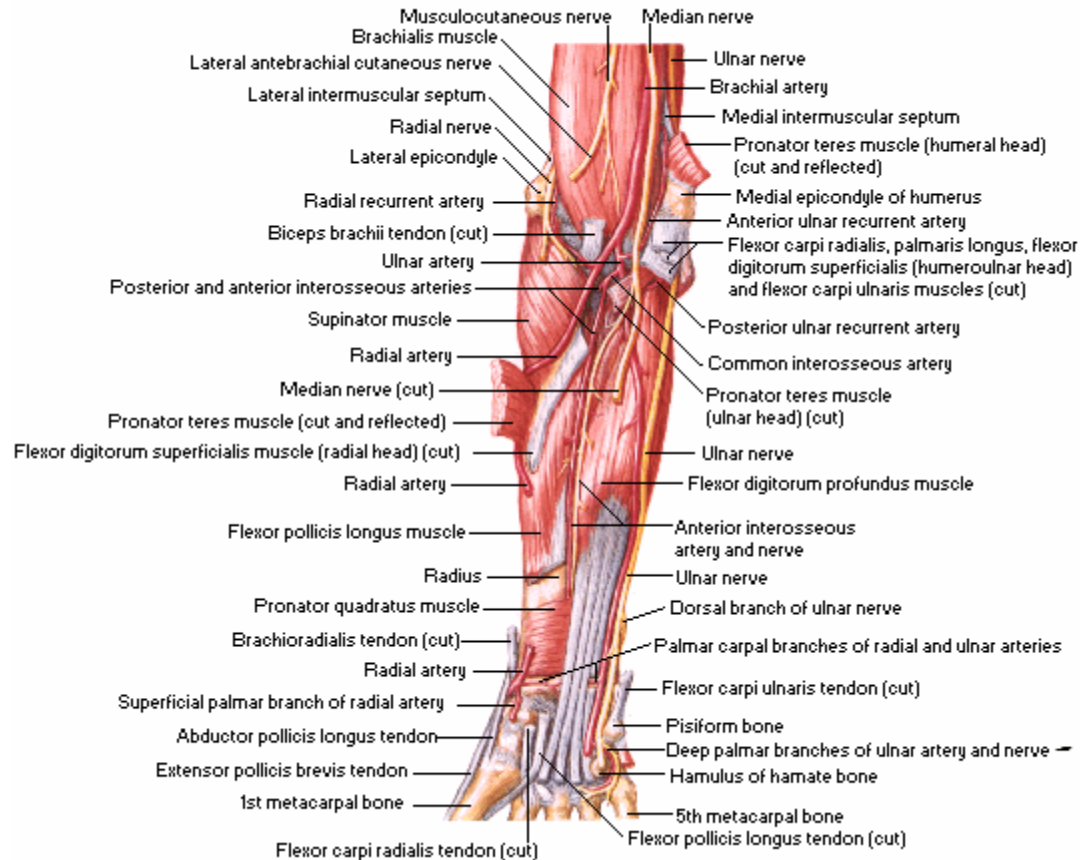
Anterior View

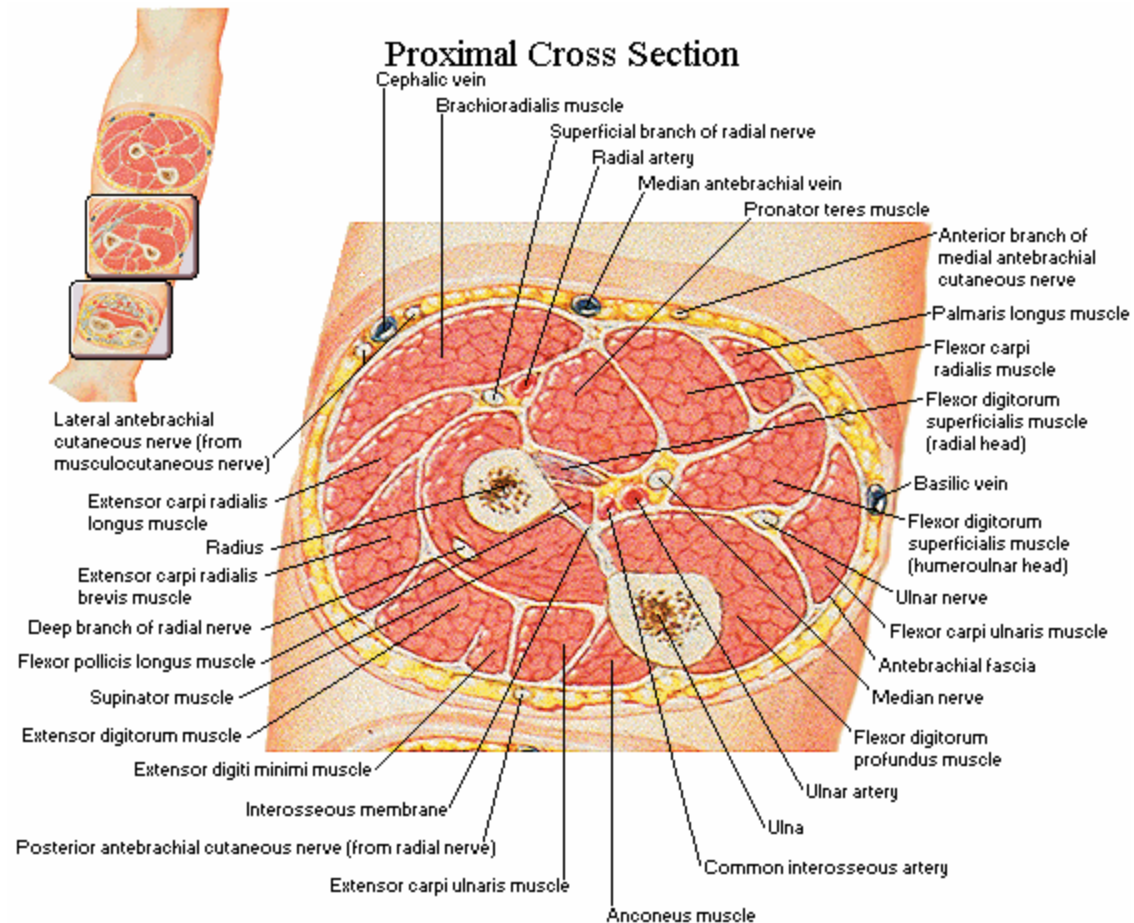


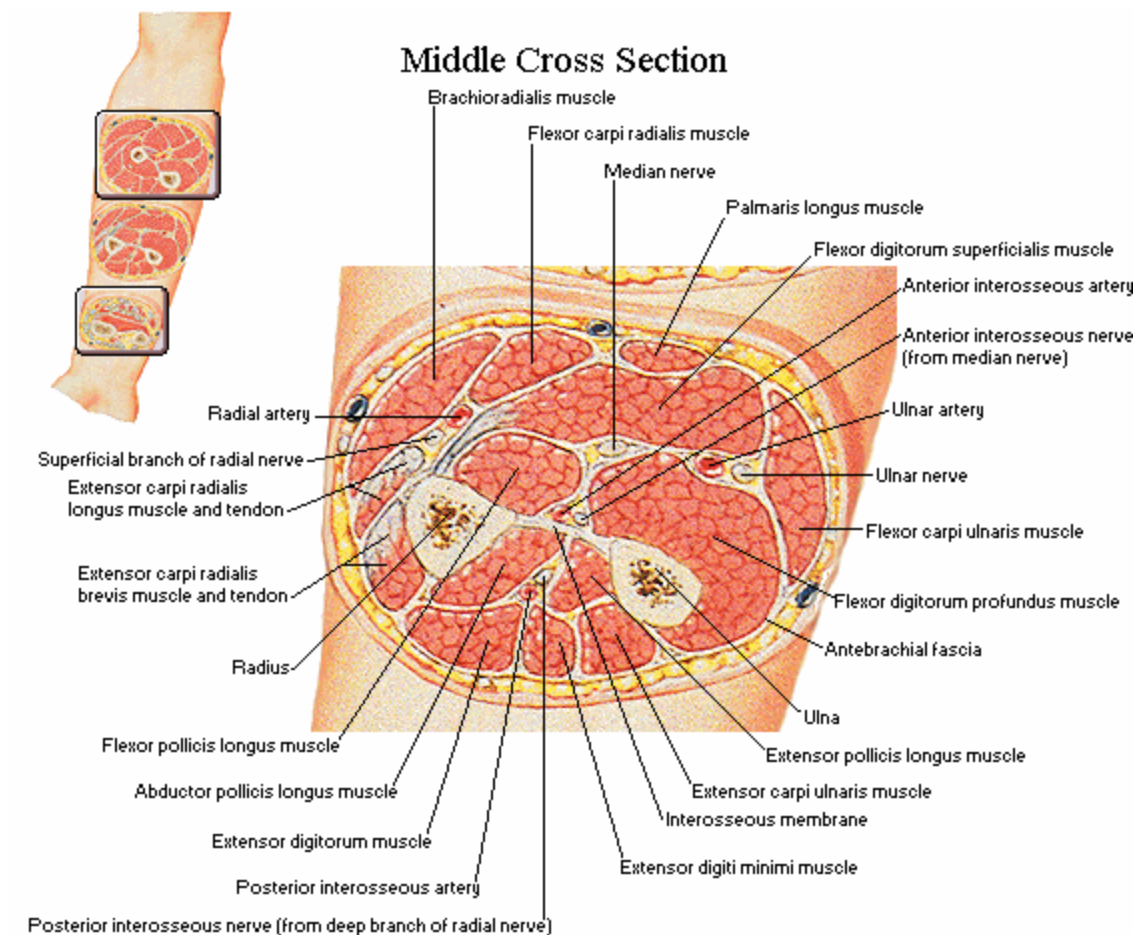
Anterior View

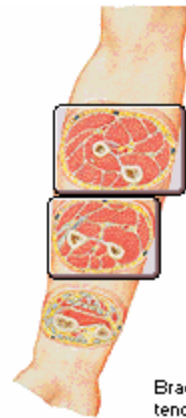


Anterior View

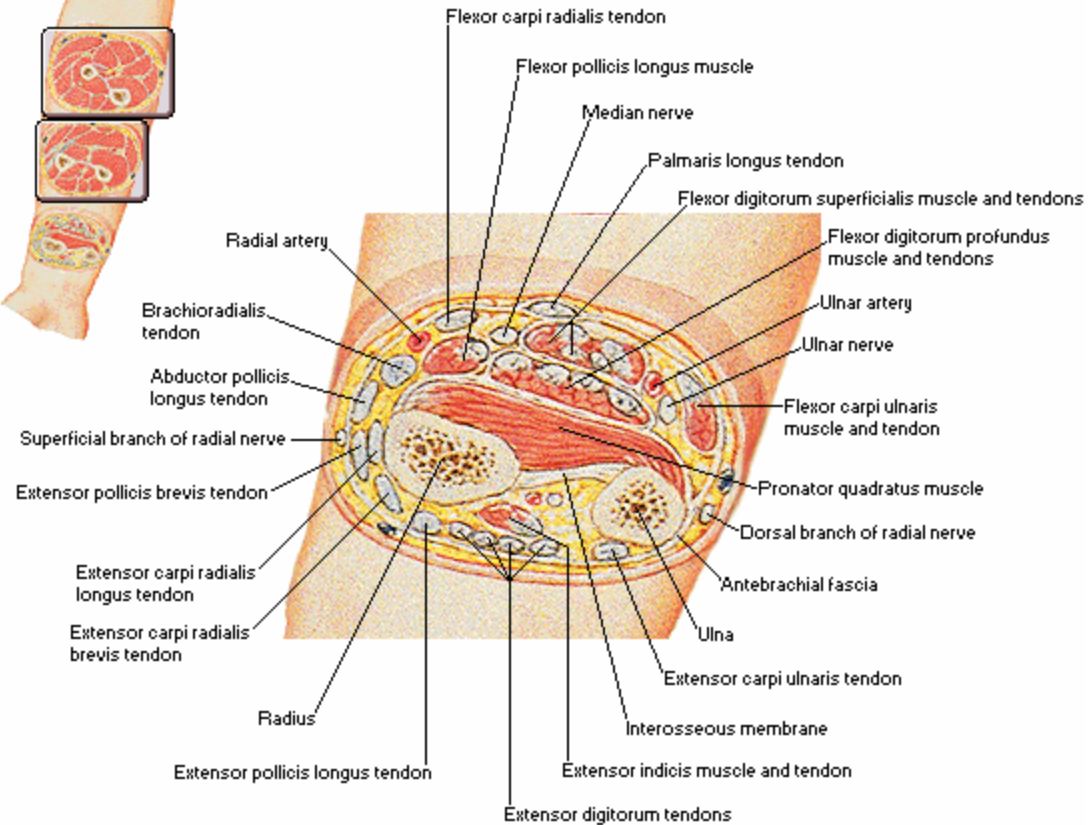




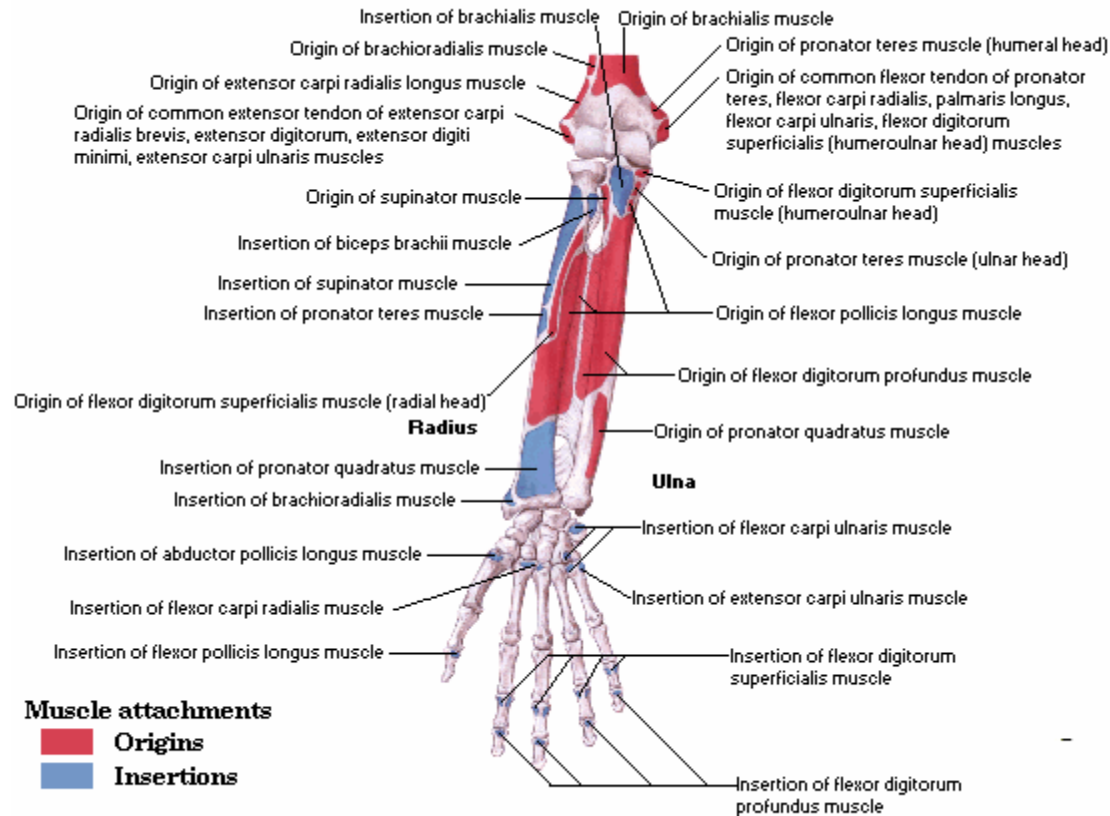




Distal Cross Section



Anterior View

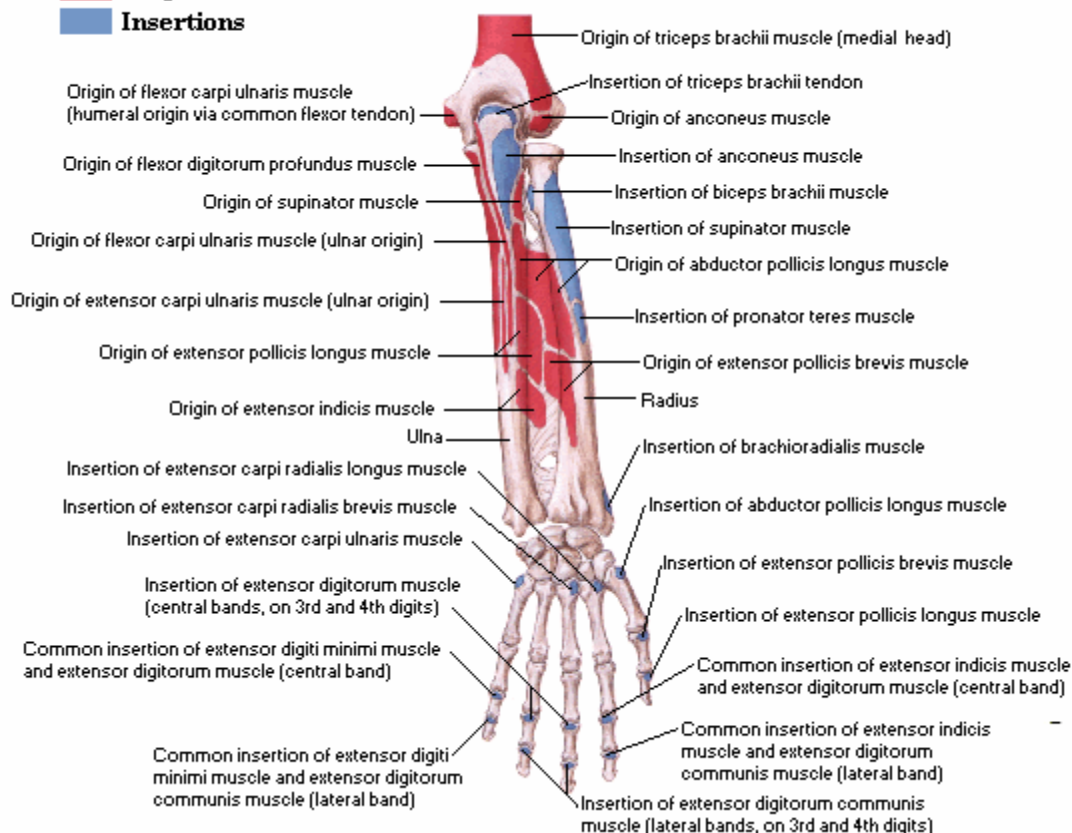


Note: attachments of intrinsic muscles of hand not shown

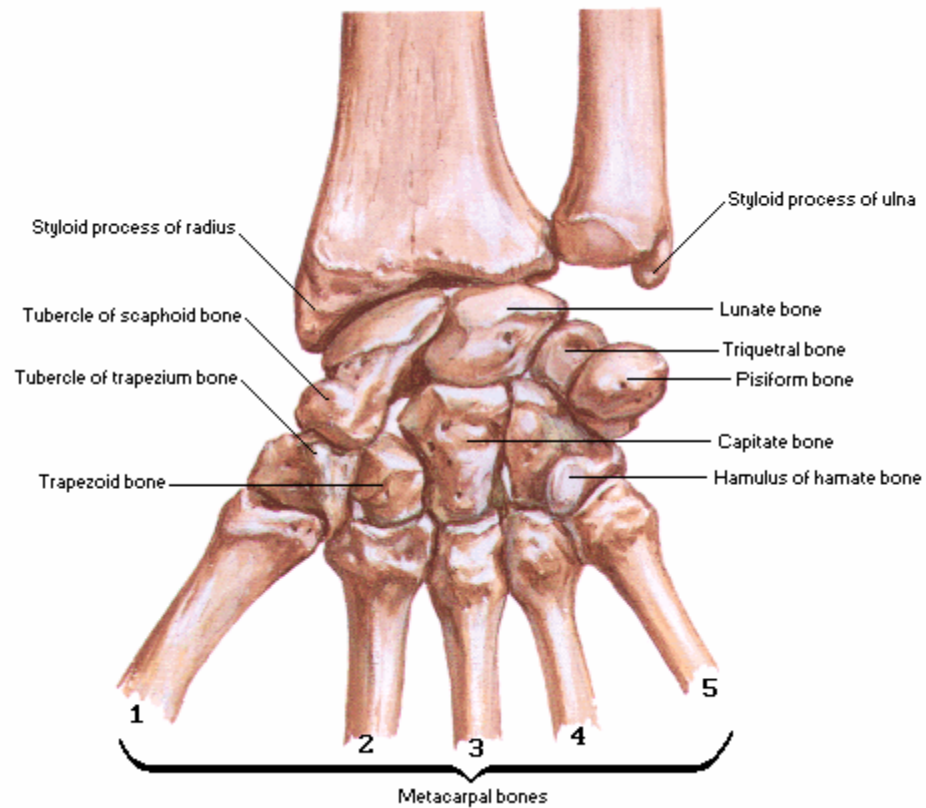
Muscle attachments

Origins
Insertions

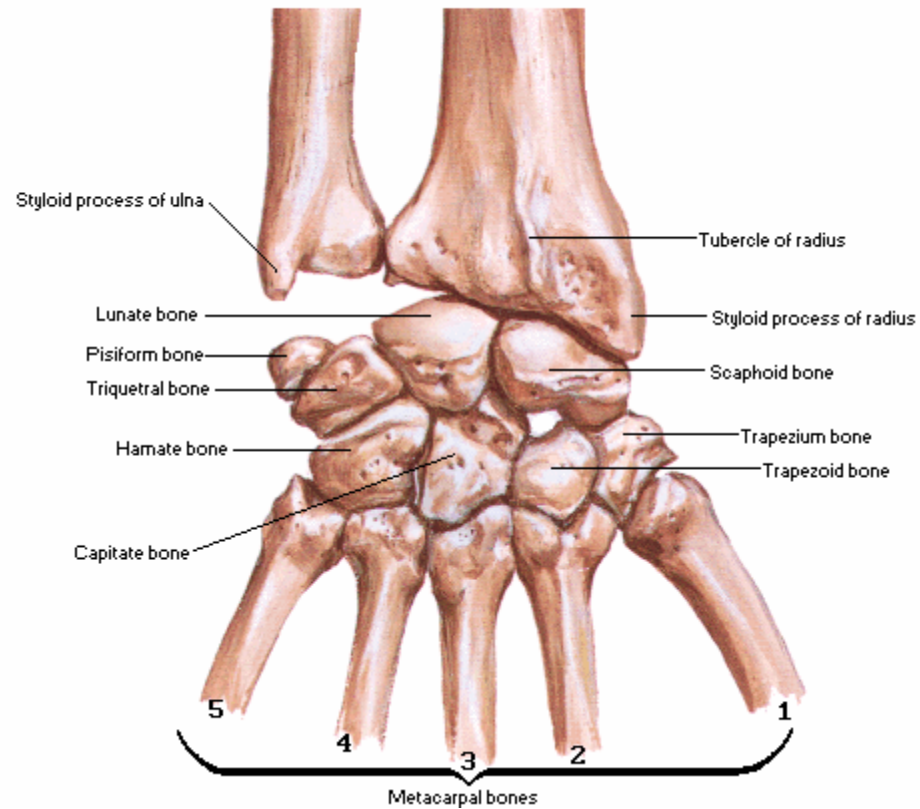
Posterior View



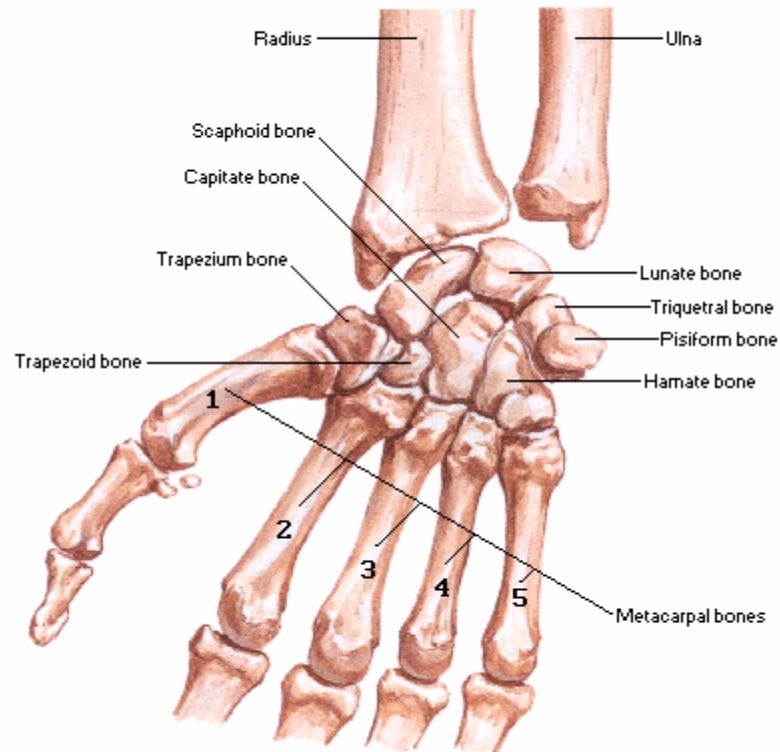
Anterior [Palmar] View



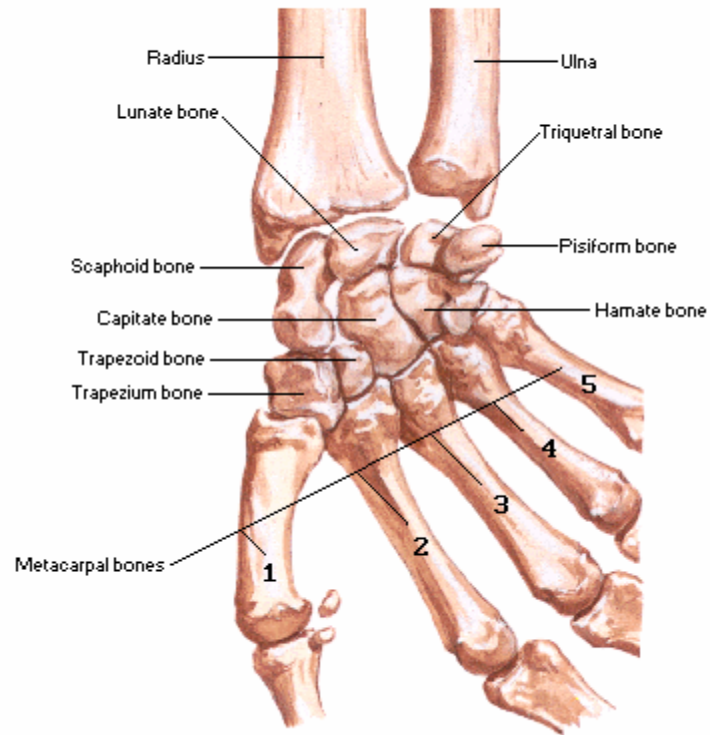
Posterior [Dorsal] View



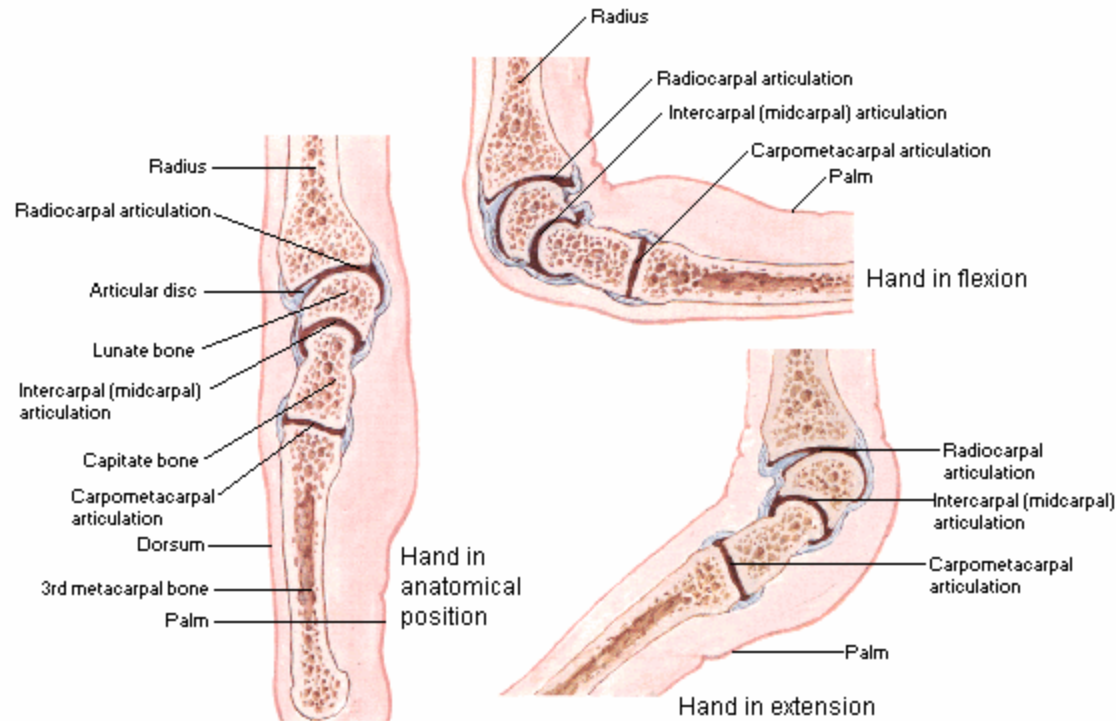
Hand in Abduction - Anterior [Palmar] View



Hand in Adduction - Anterior [Palmar] View

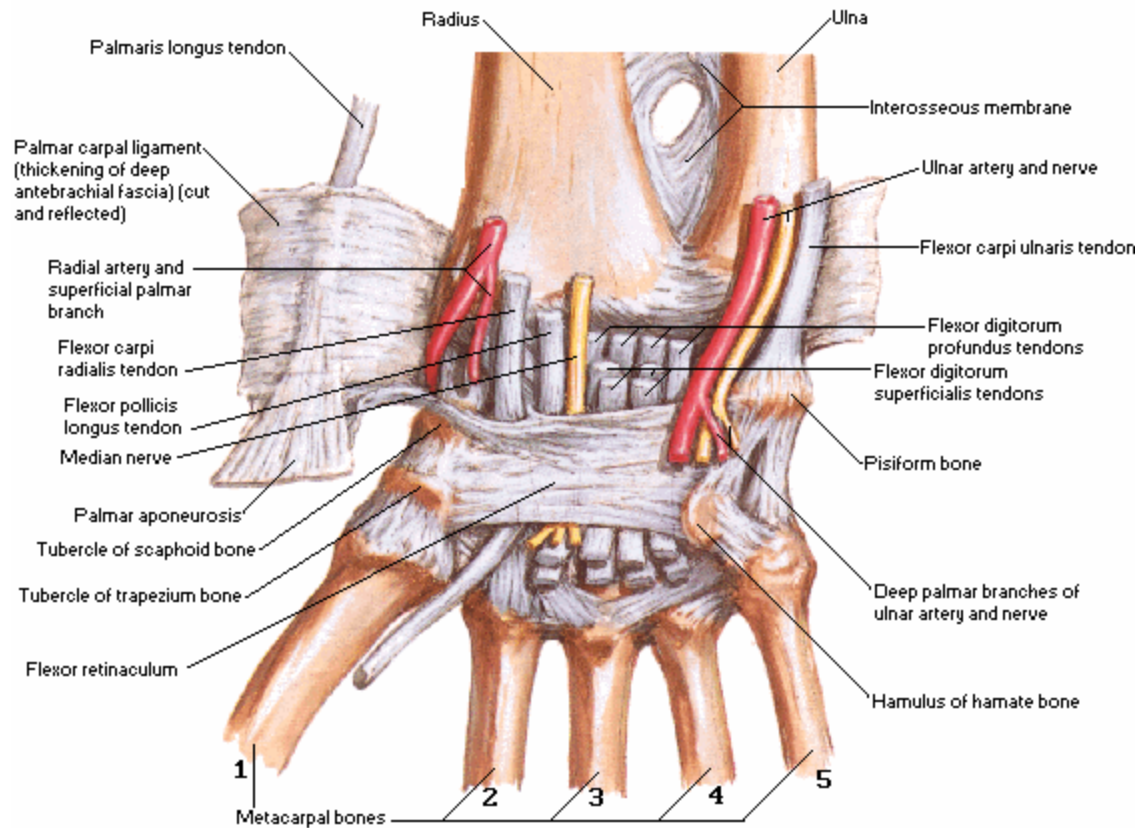


Sagittal Sections

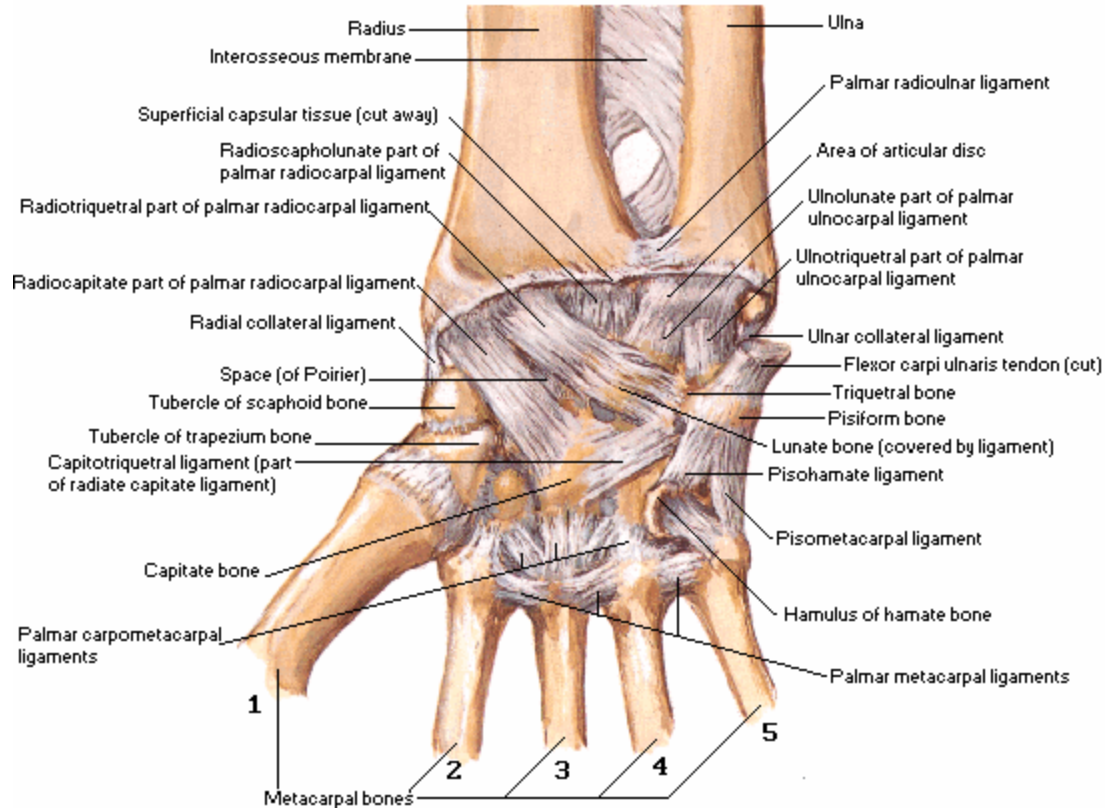


Sagittal sections through wrist and middle finger

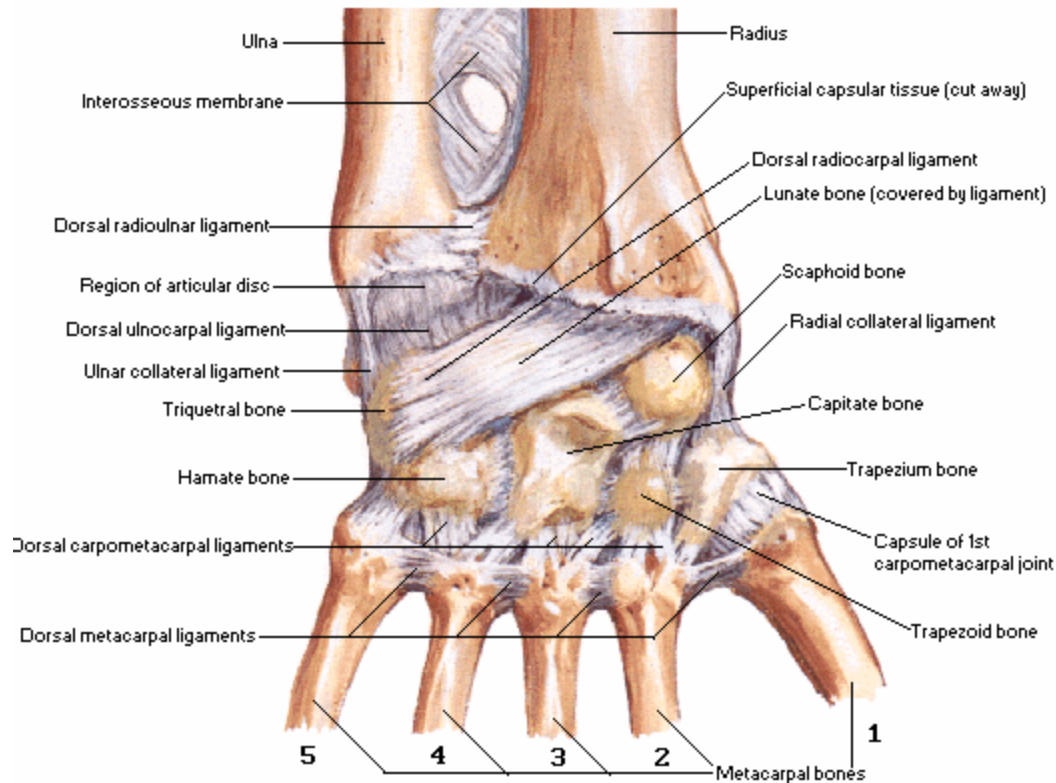
Carpal Tunnel - Palmar View



Flexor Retinaculum Removed - Palmar View

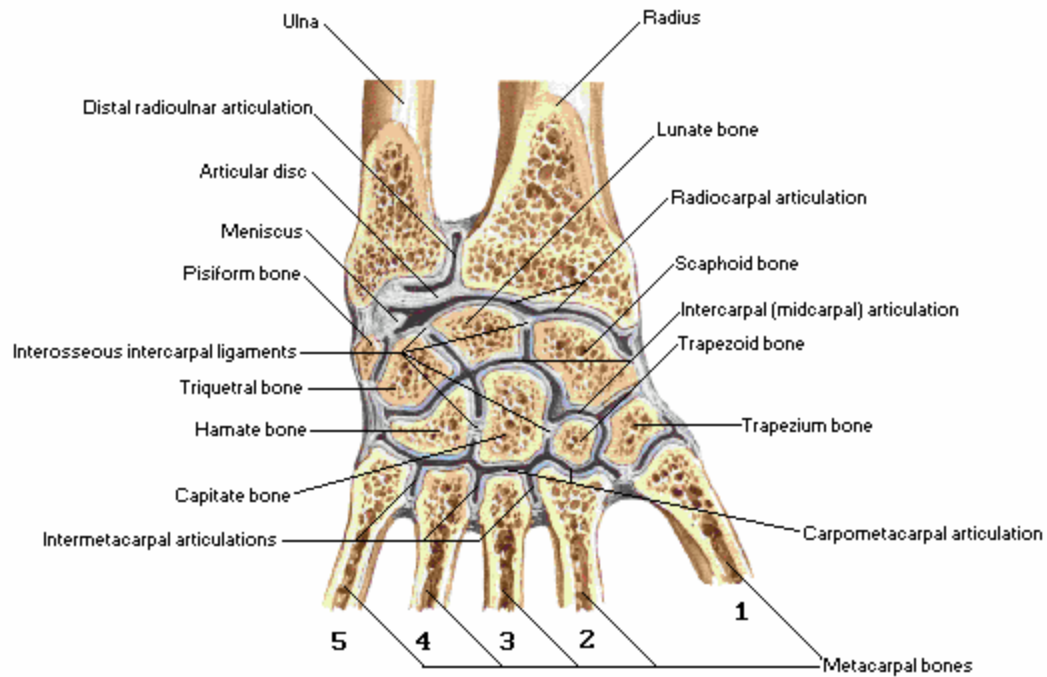


Posterior [Dorsal] View

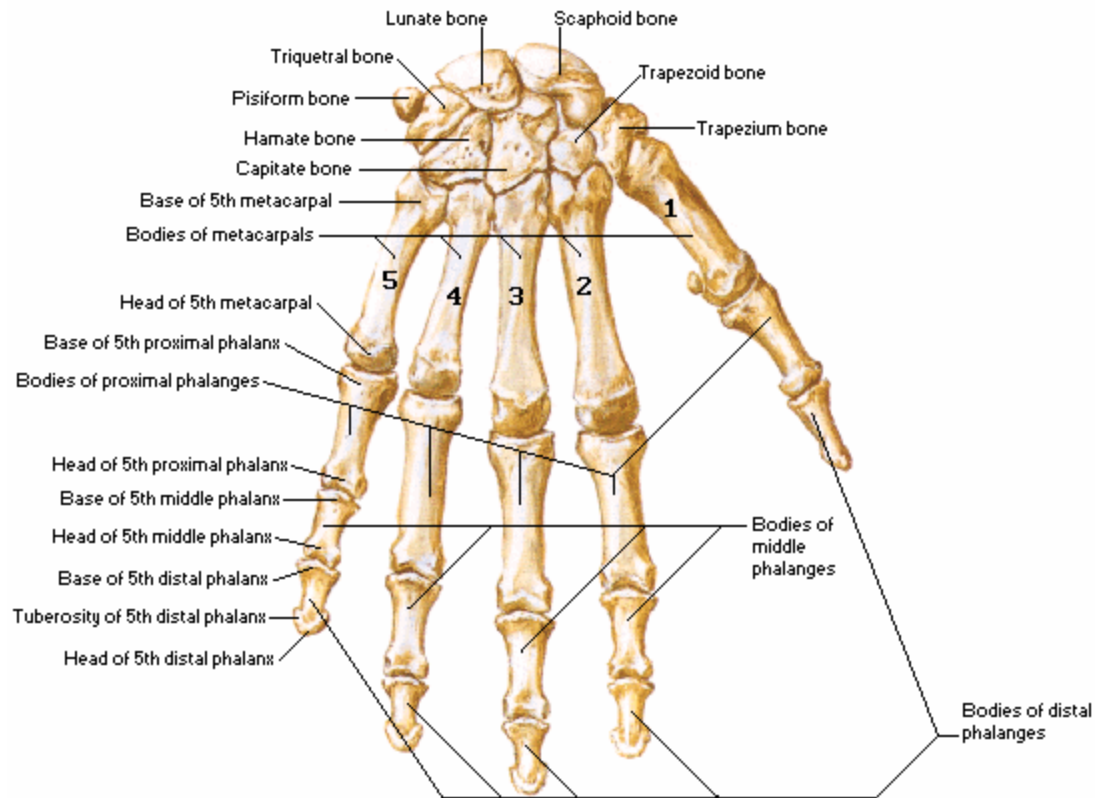


Note: dorsal ligaments weaker than palmar ligaments

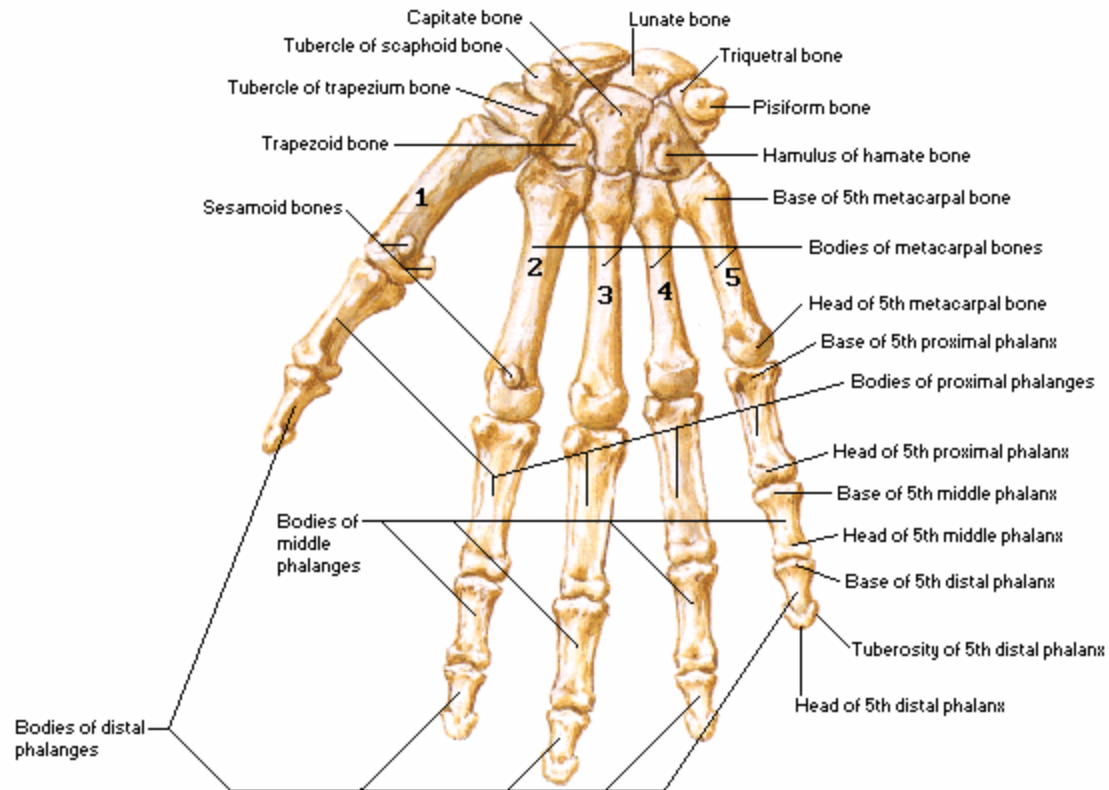
Coronal Section - Dorsal View



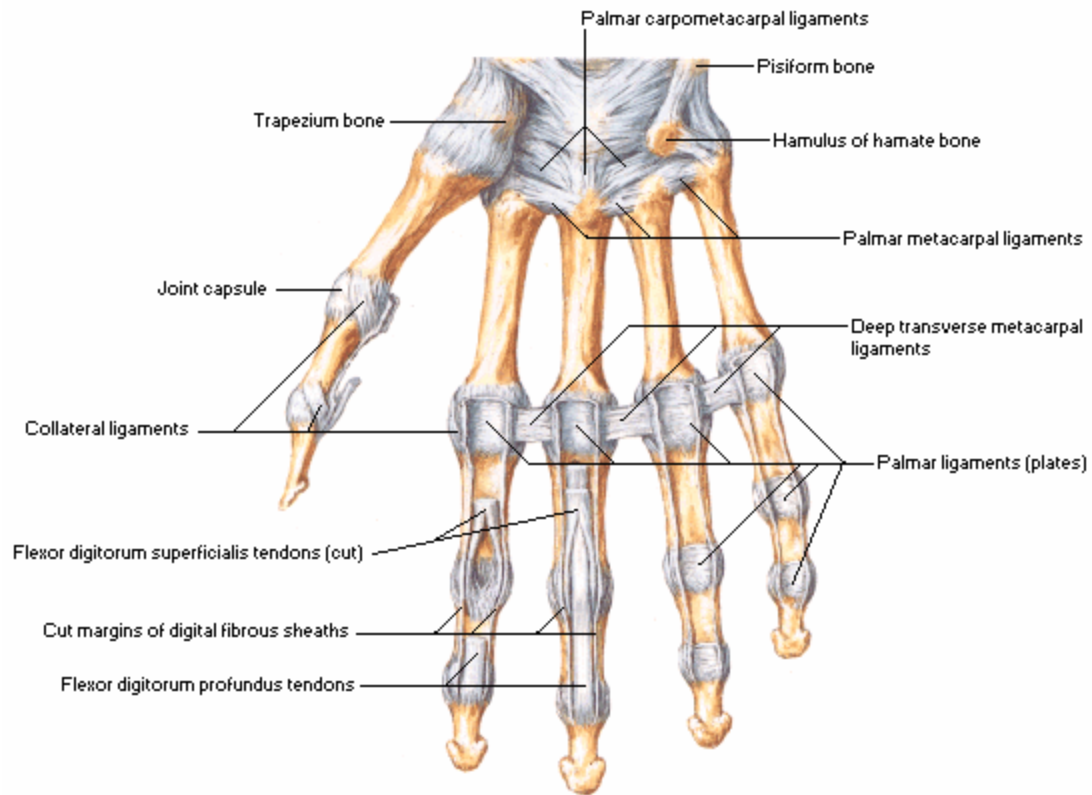
Posterior [Dorsal] View



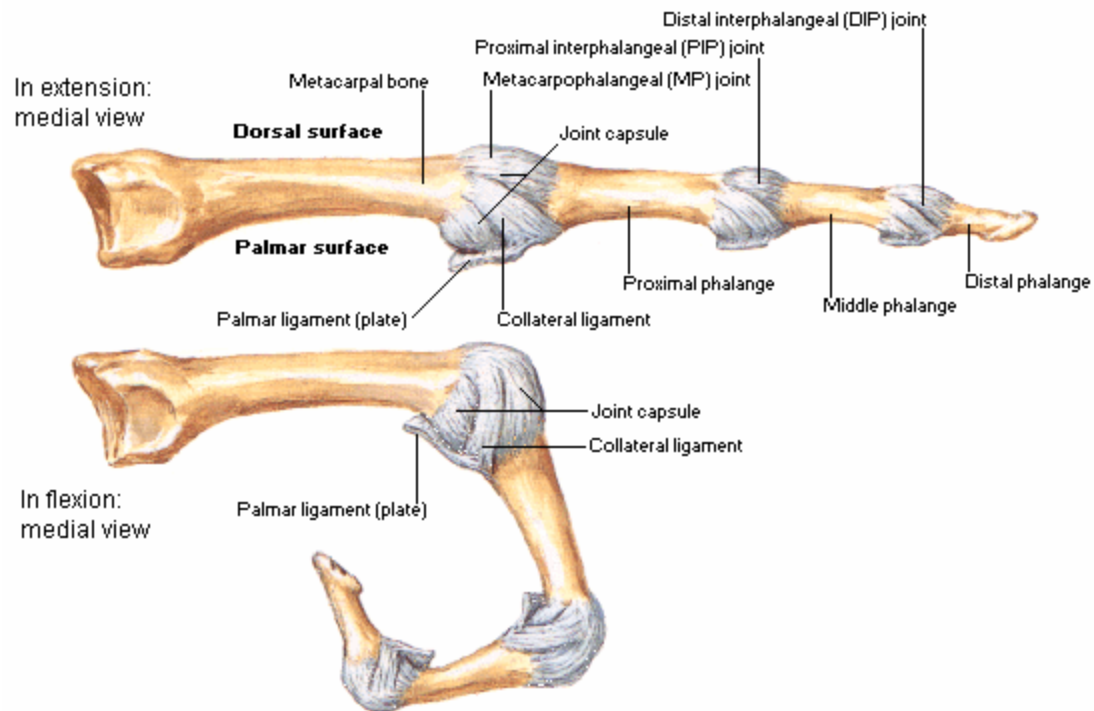
Anterior [Palmar] View



Palmar View

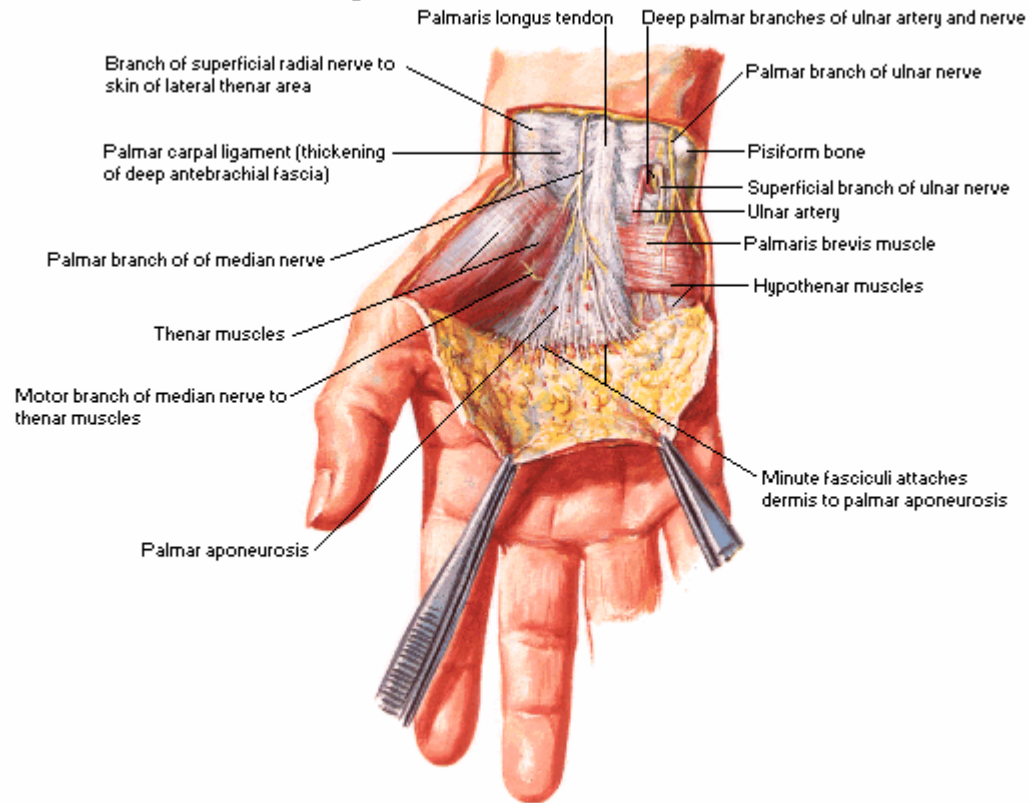


Medial Views

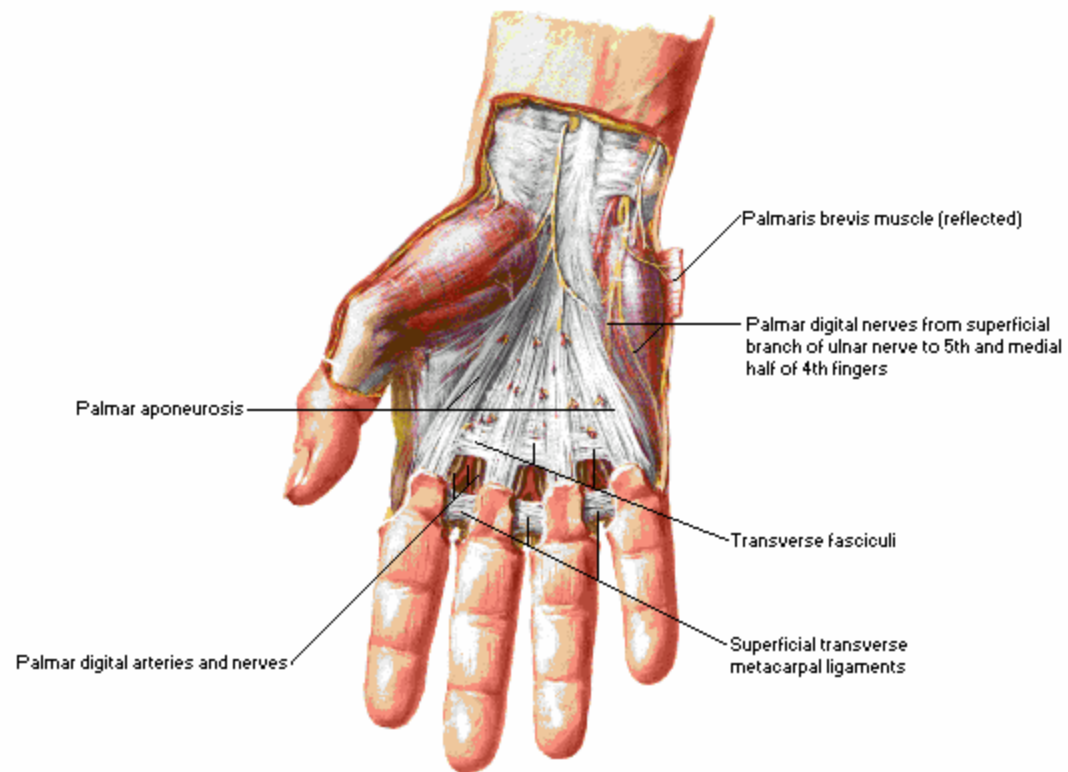


Note: ligaments of metacarpophalangeal and interphalangeal joints are similar

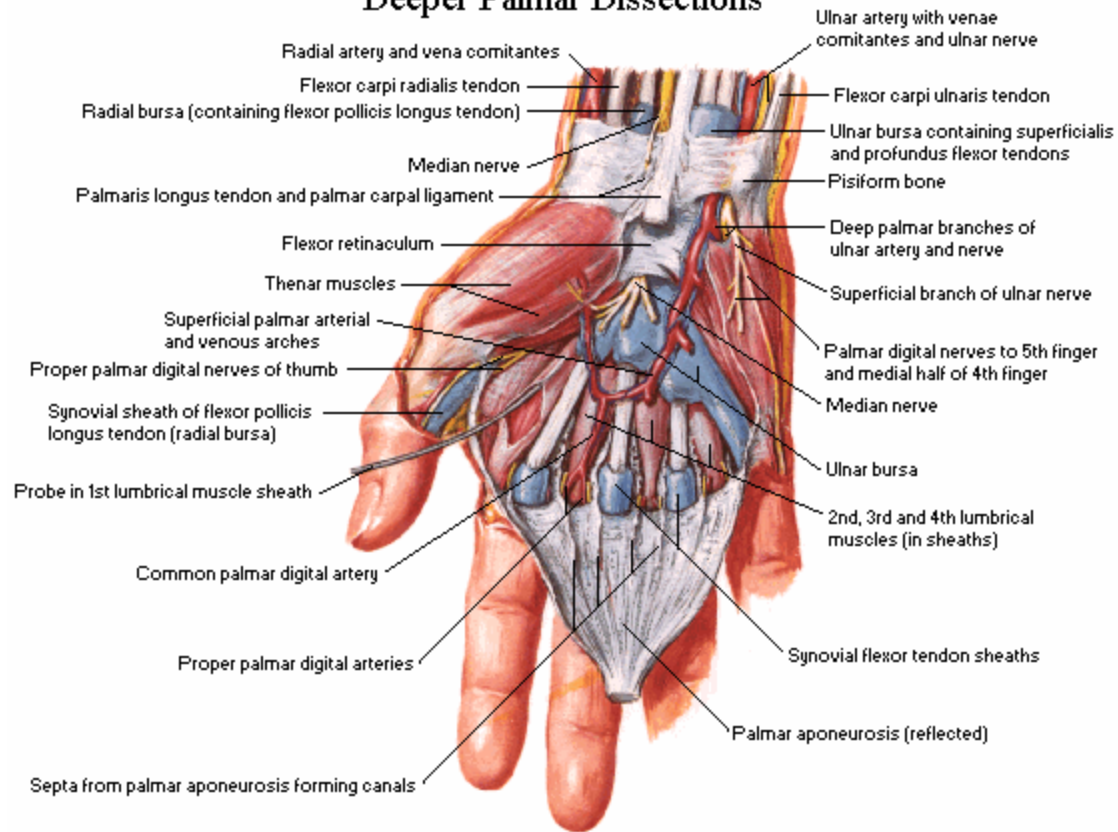
Superficial Palmar Dissections



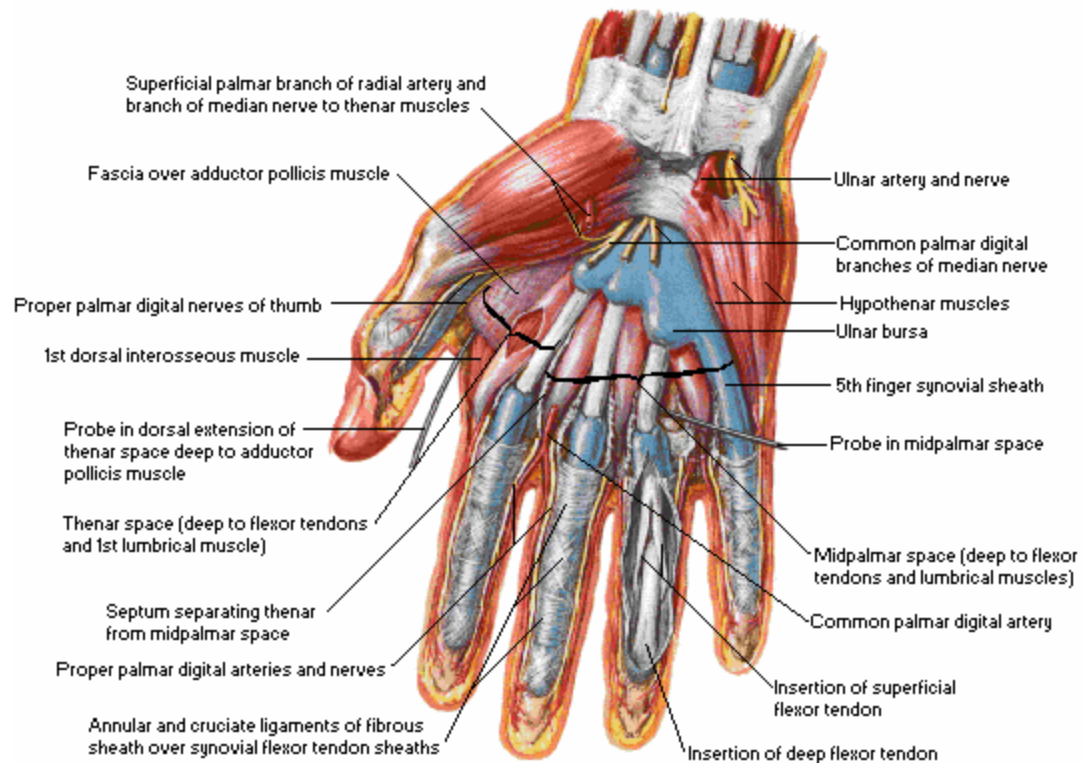
Superficial Palmar Dissections [Continued]



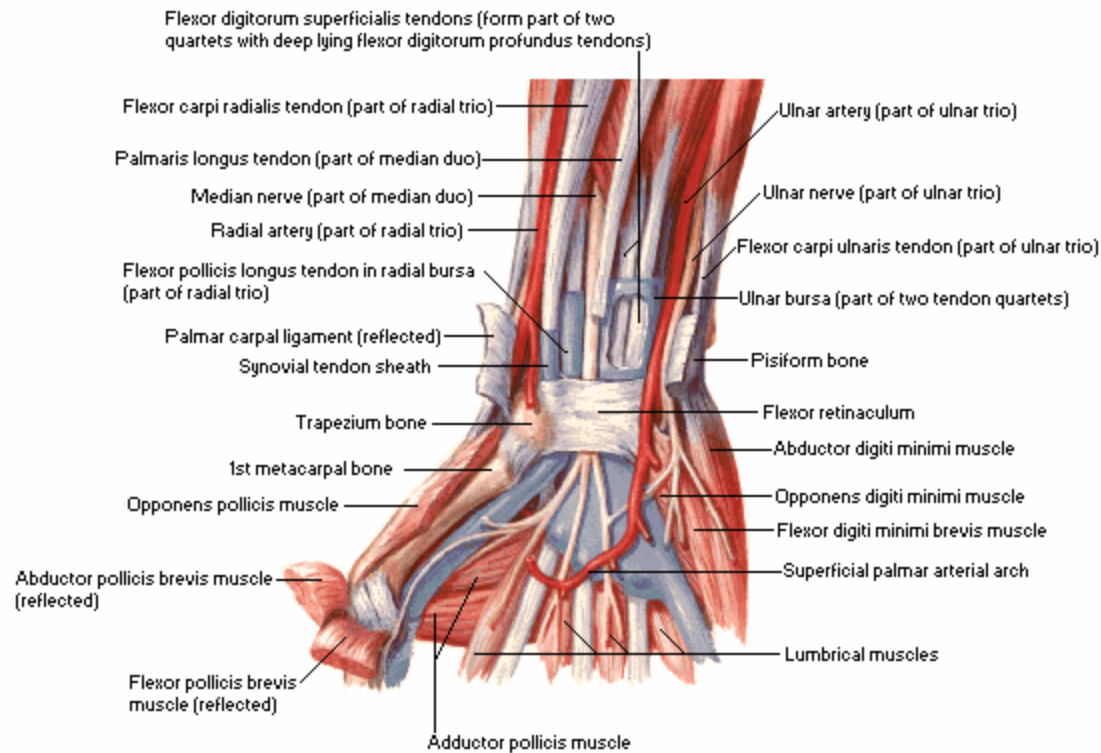
Deeper Palmar Dissections



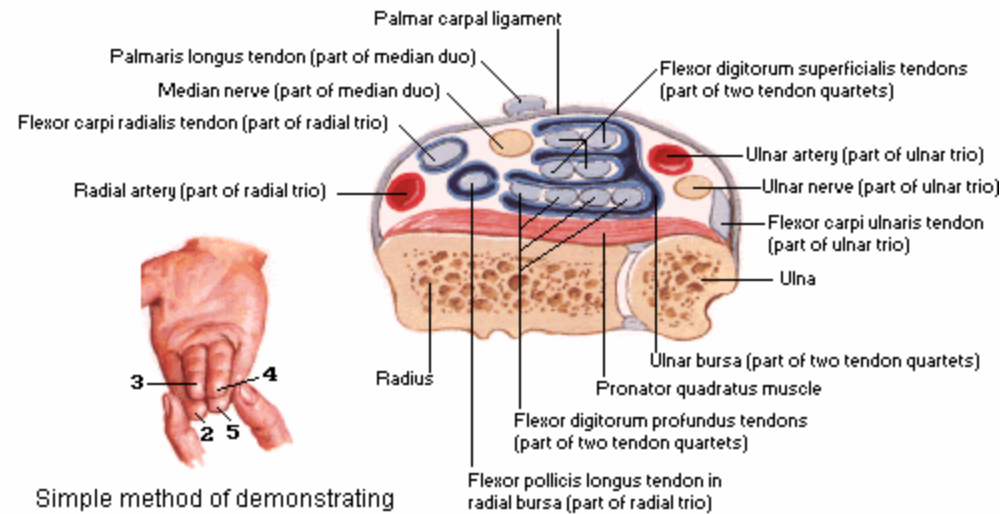
Deeper Palmar Dissections [Continued]



Palmar View

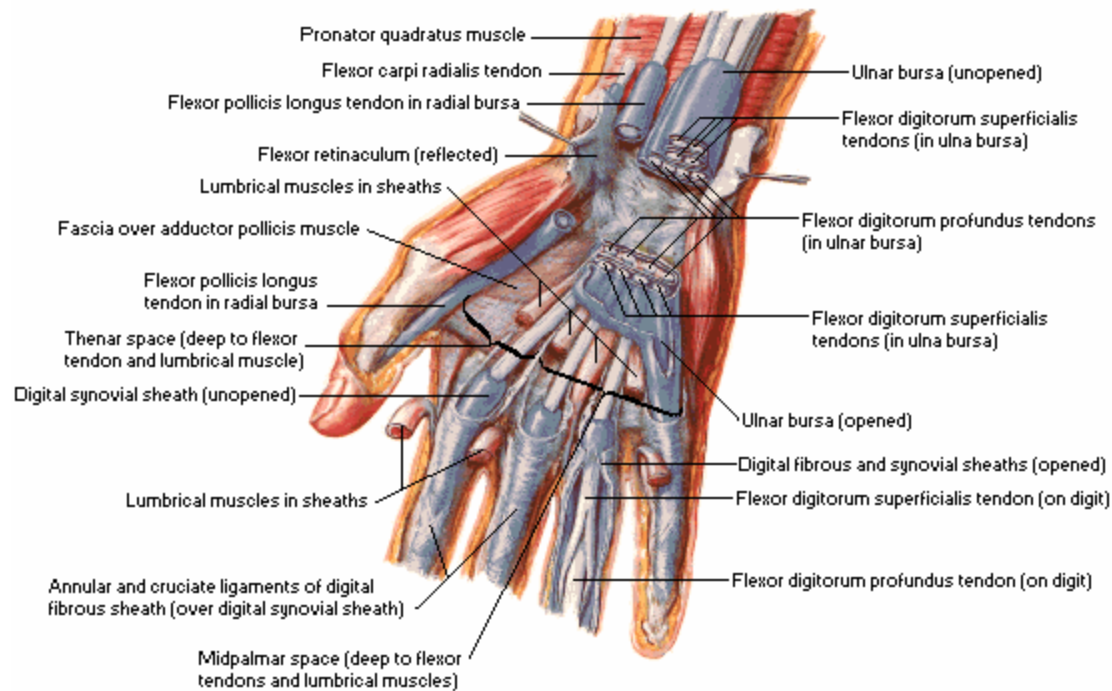


Cross Section

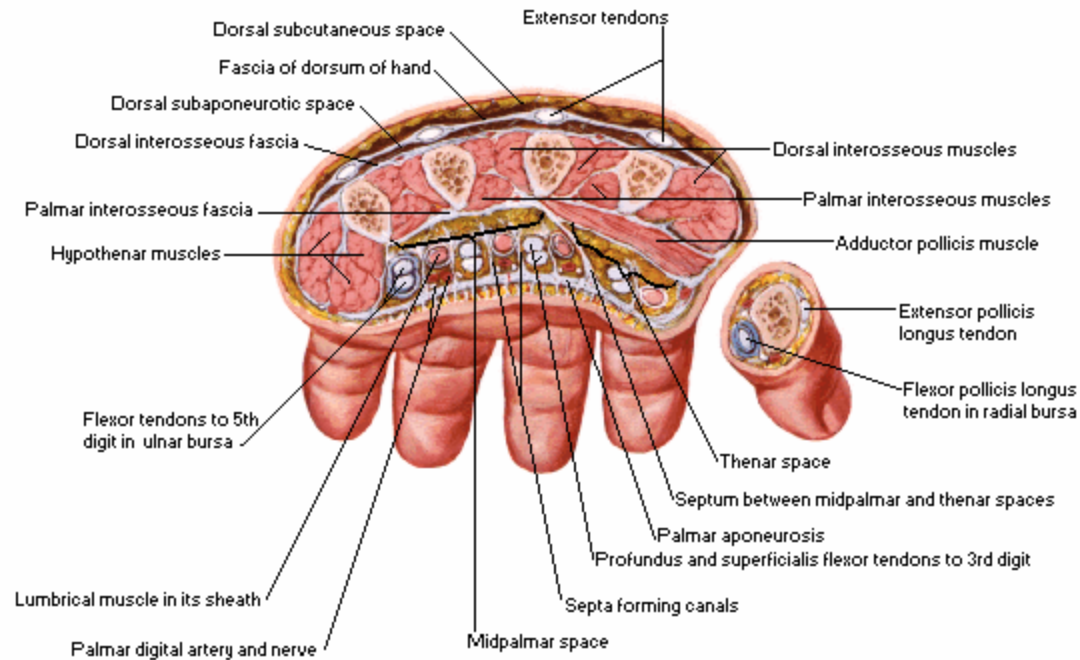


Simple method of demonstrating arrangement of flexor digitorum superficialis tendons at wrist

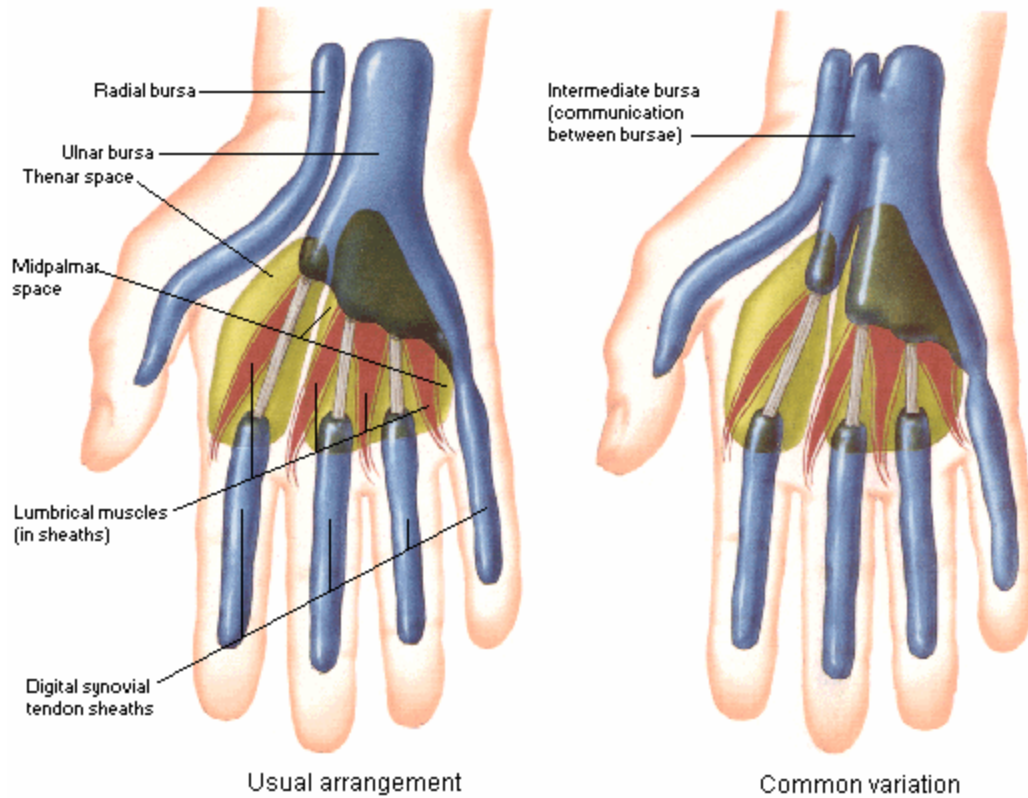
Palmar View



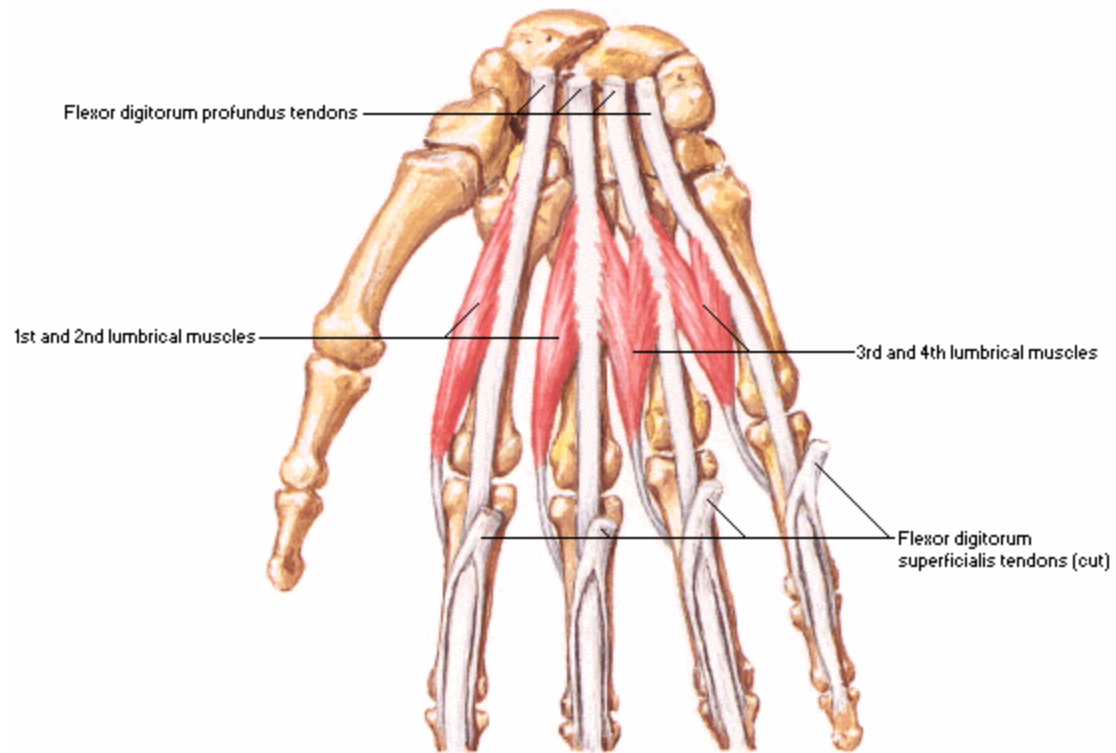
Cross Section



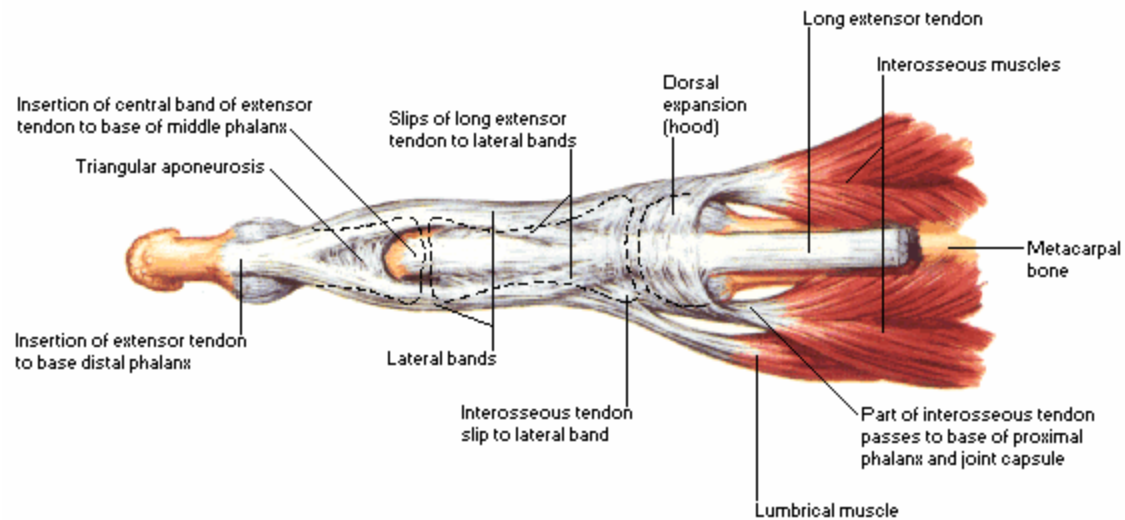
Schema



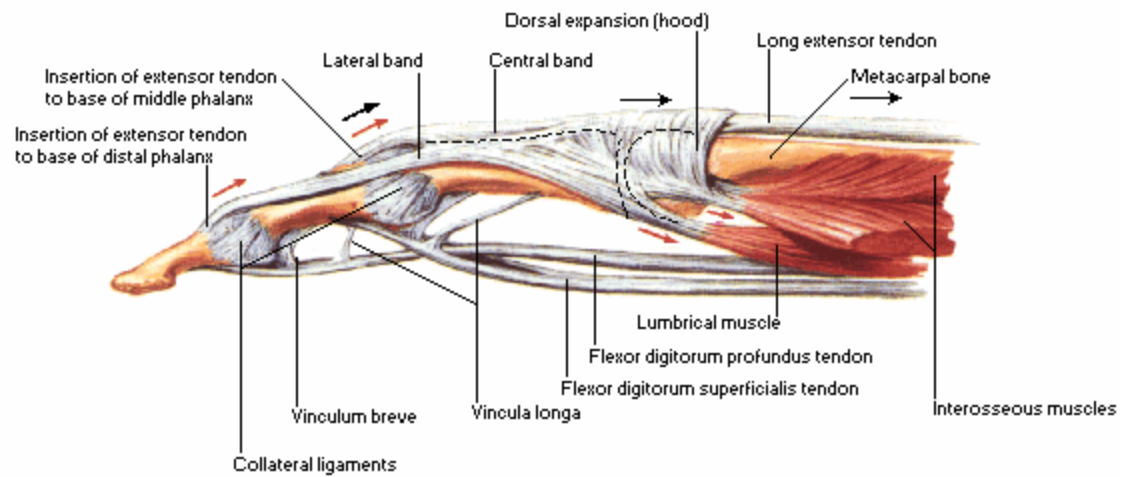
Schema



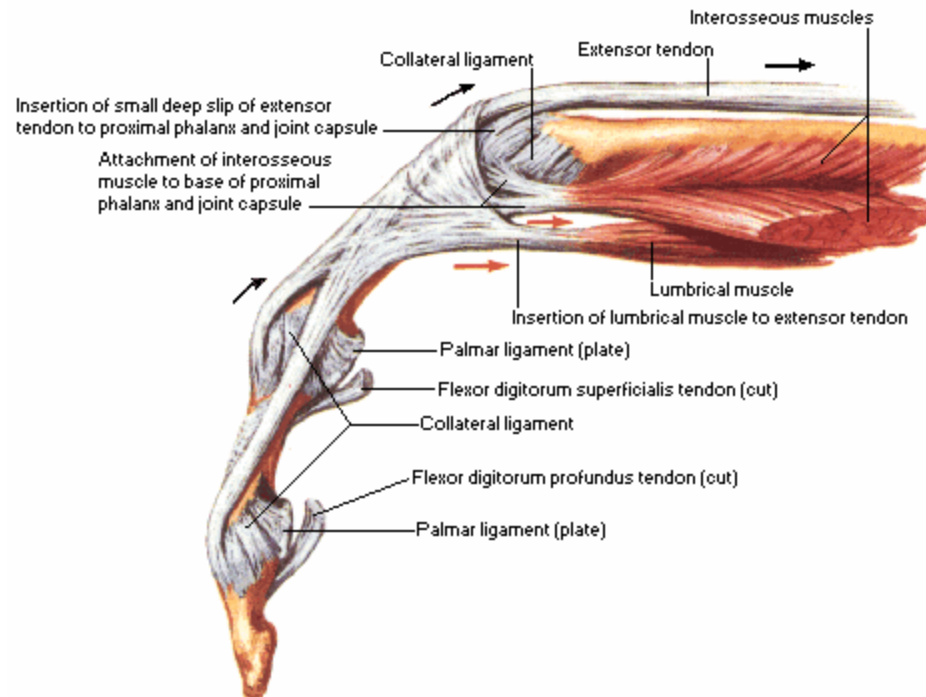
Posterior [Dorsal] View



Extended - Lateral View

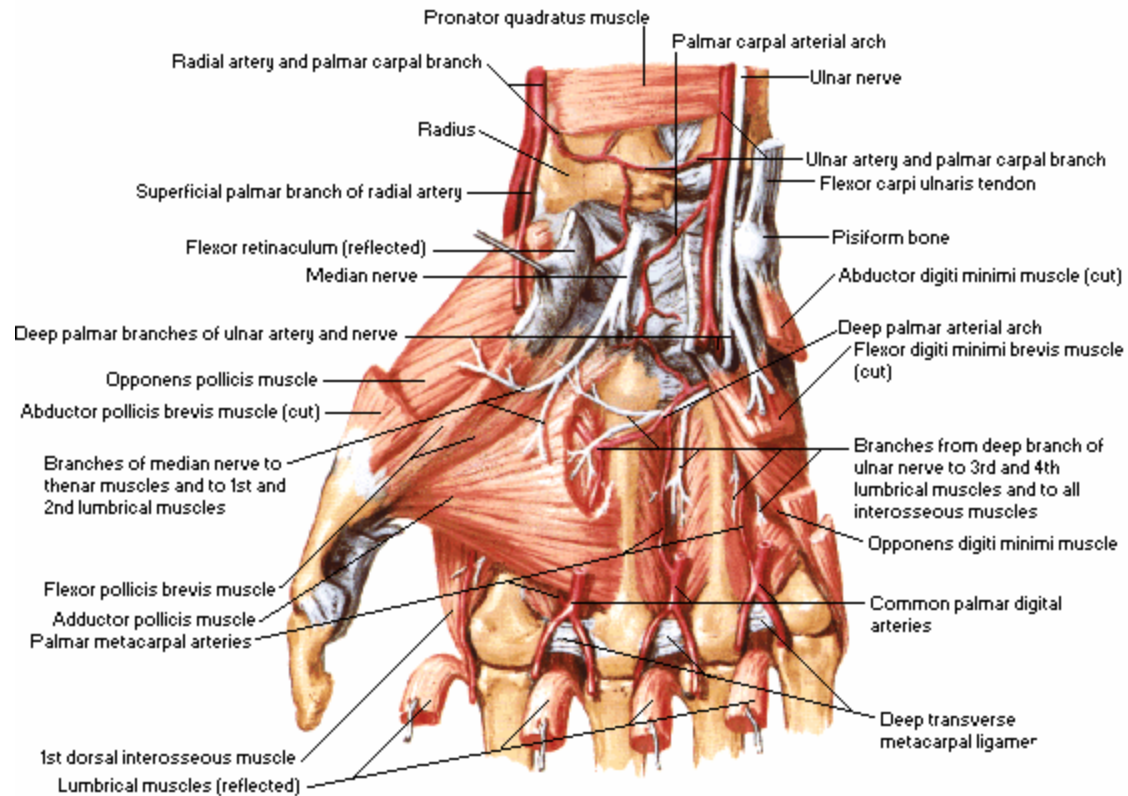


Flexed - Lateral View

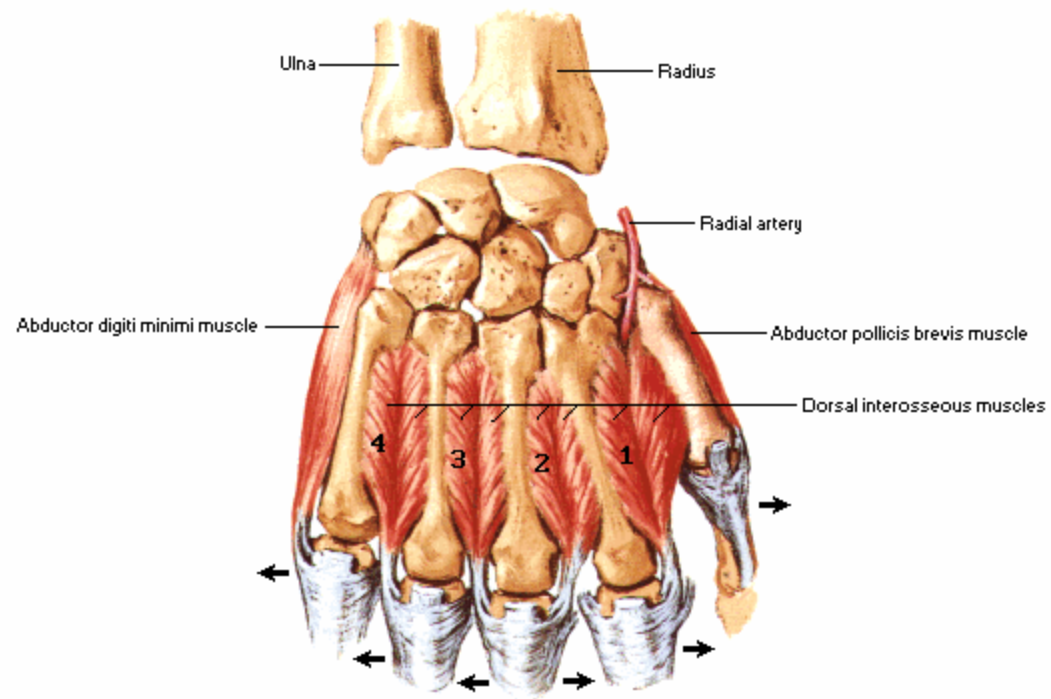


Note: black arrows indicate pull of long extensor tendon; red arrows indicate pull of interosseous and lumbrical muscles

Anterior [Palmar] View

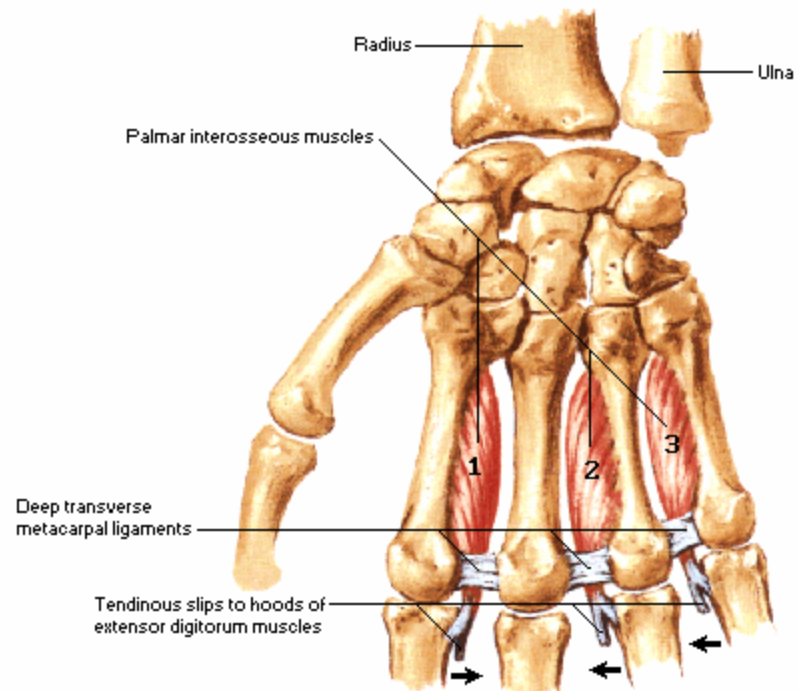


Posterior [Dorsal] View



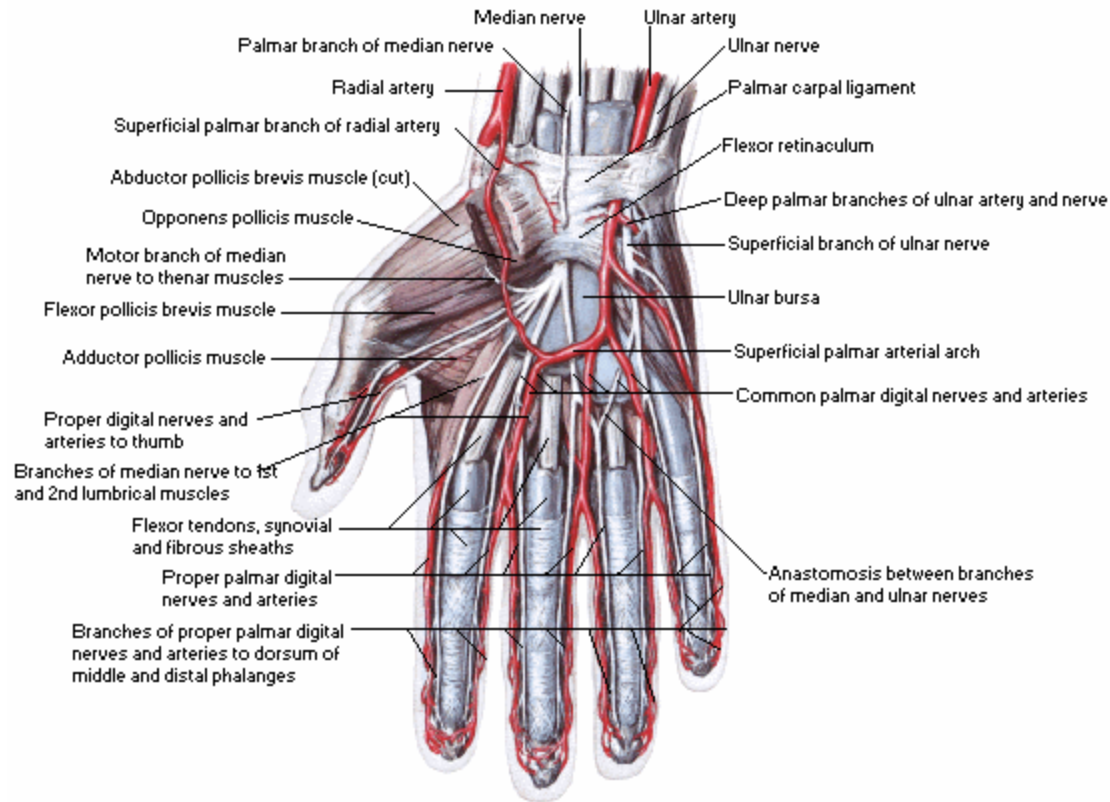
Note: arrows indicate action of muscles

Deep Anterior [Palmar] View

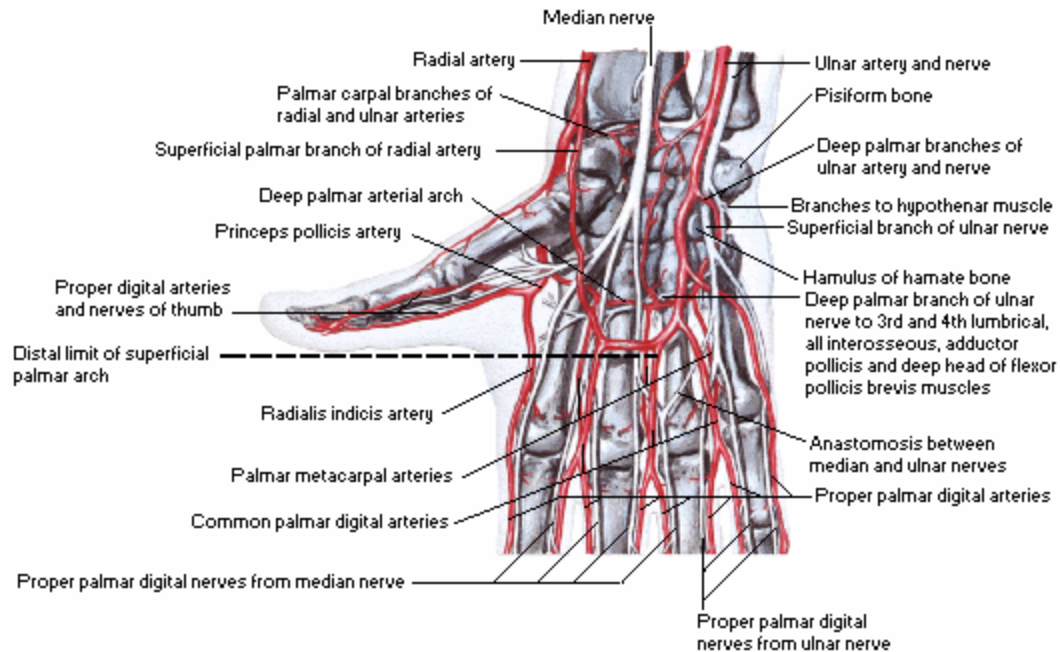


Note: arrows indicate action of muscles

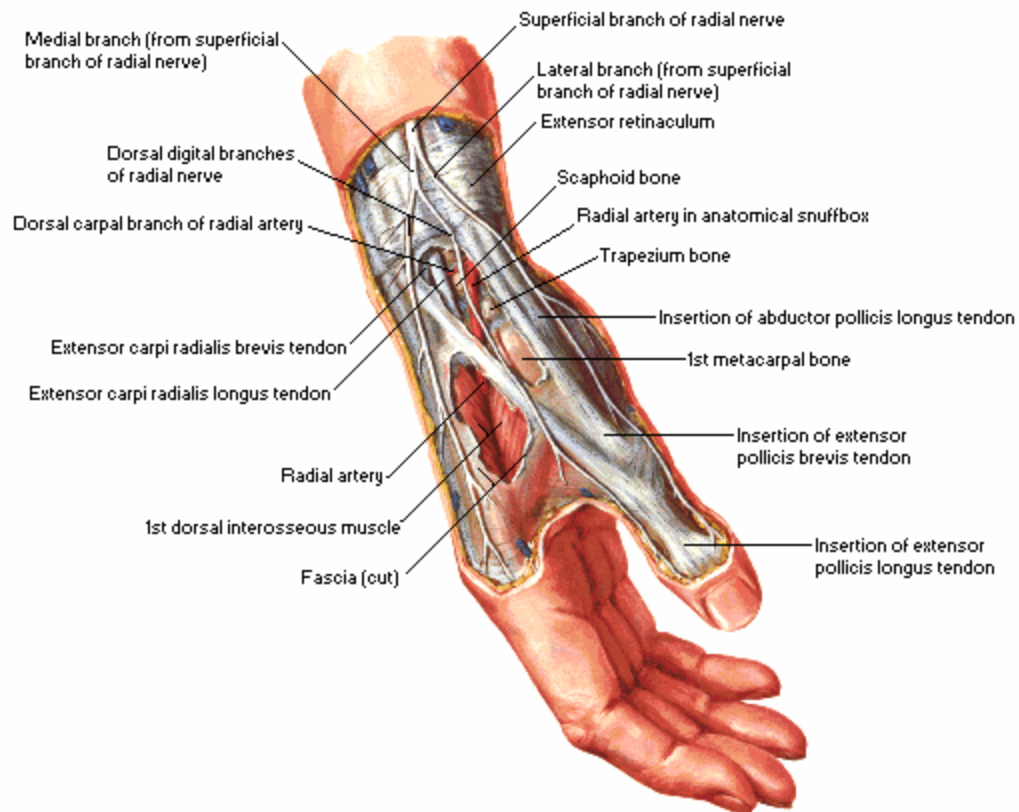
Palmar View



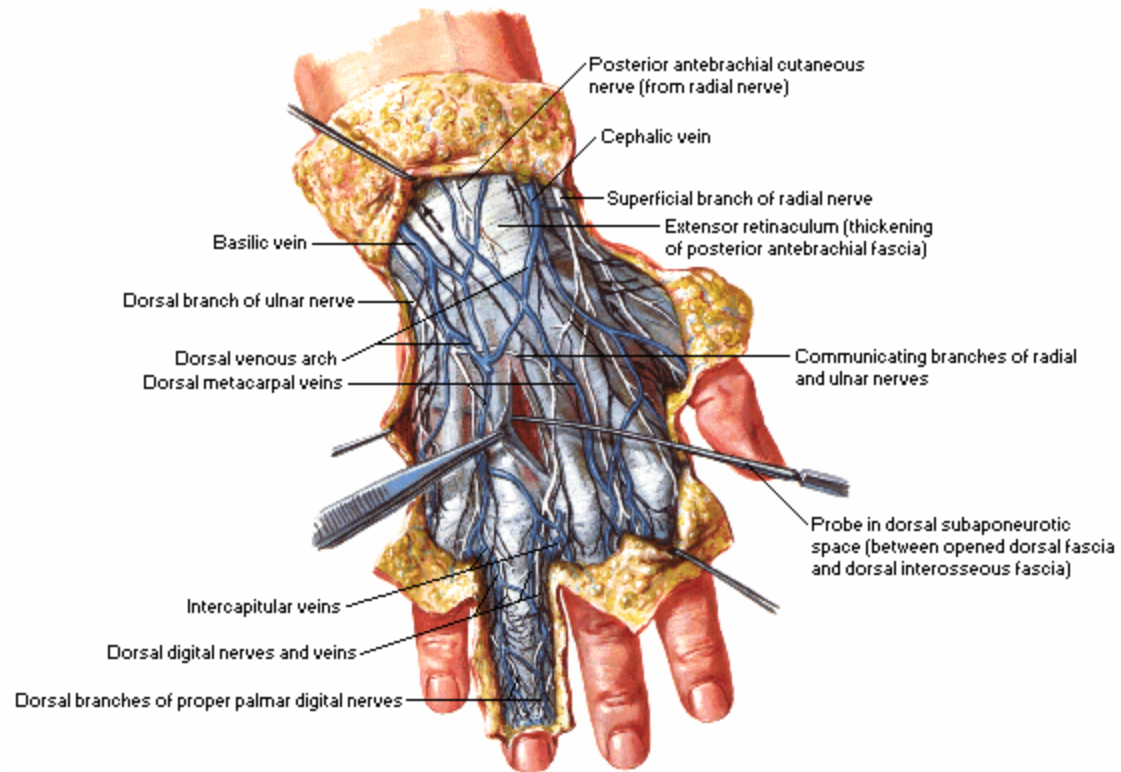
Deep Palmar View



Superficial Radial Dissection

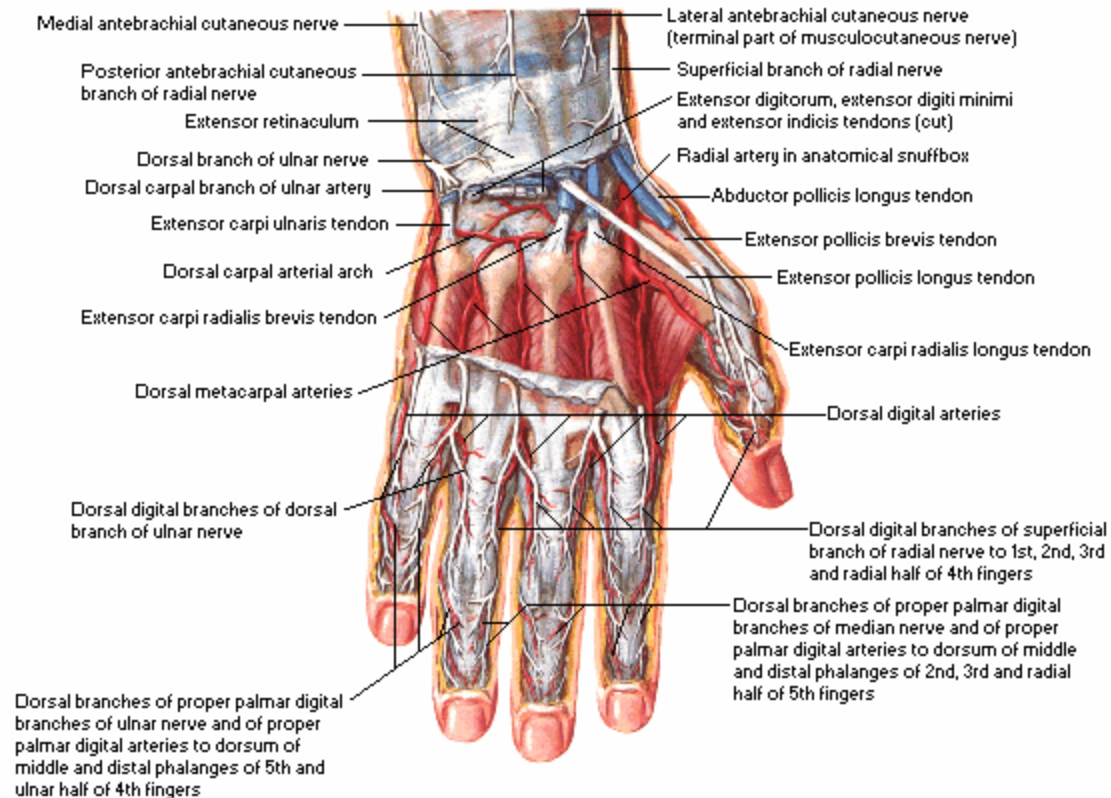


Superficial Dorsal Dissection

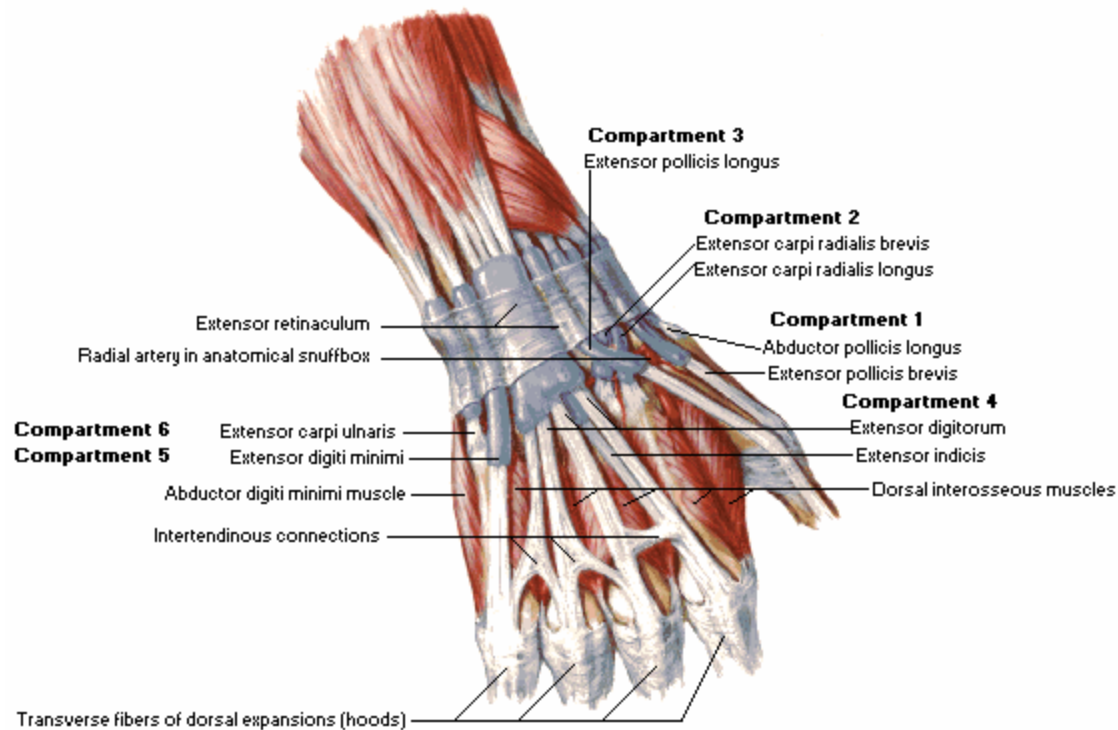


Note: lymphatic pathways shown in black; arrows indicate direction of drainage

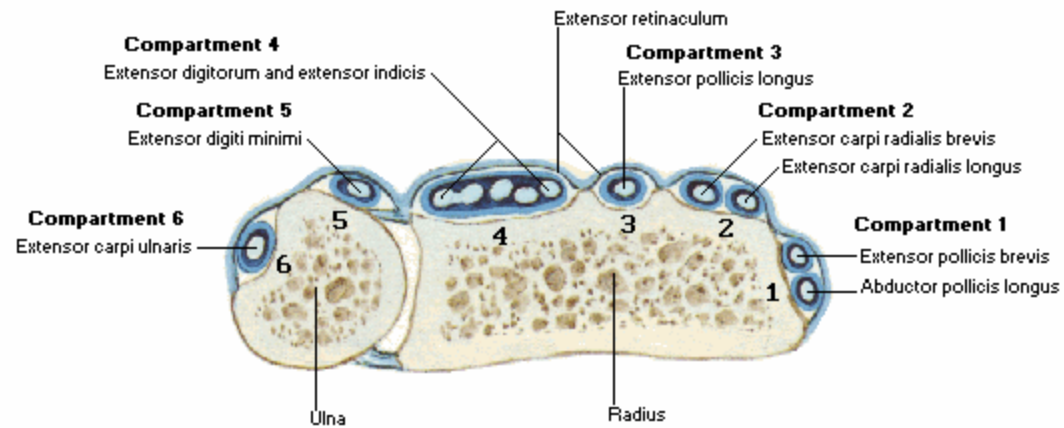
Deep Dorsal Dissection



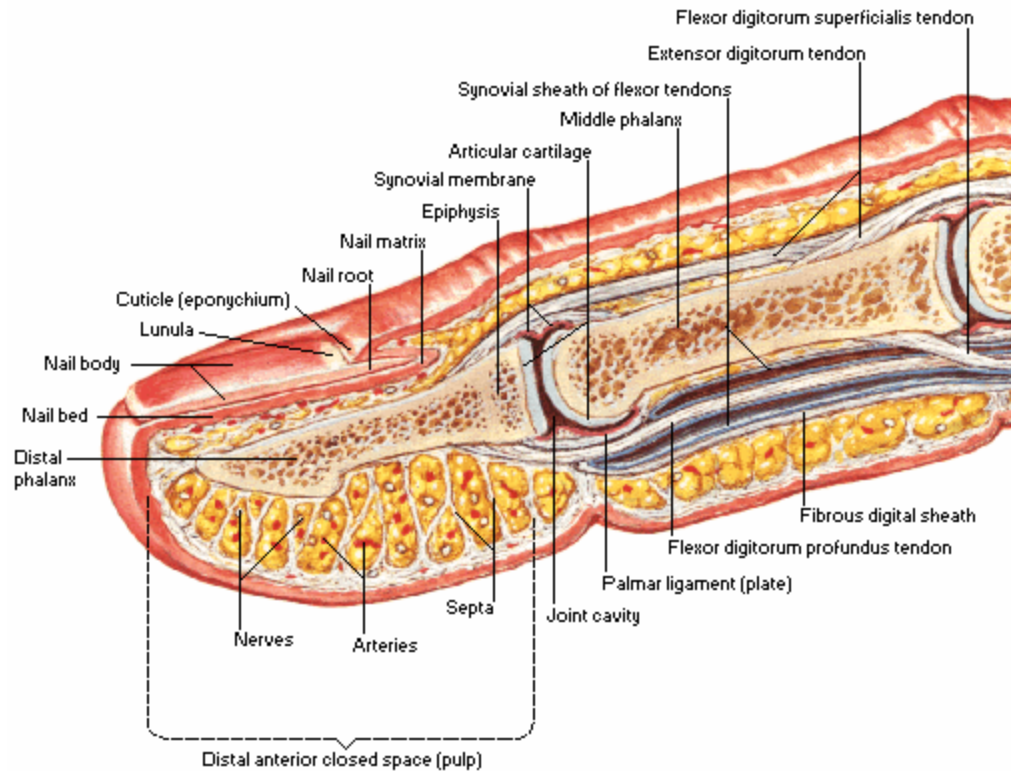
Posterior [Dorsal] View



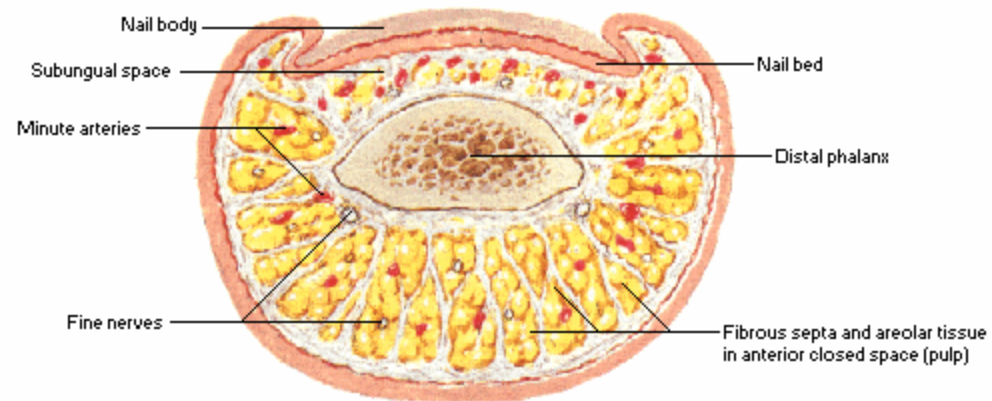
Cross Section at Proximal Wrist



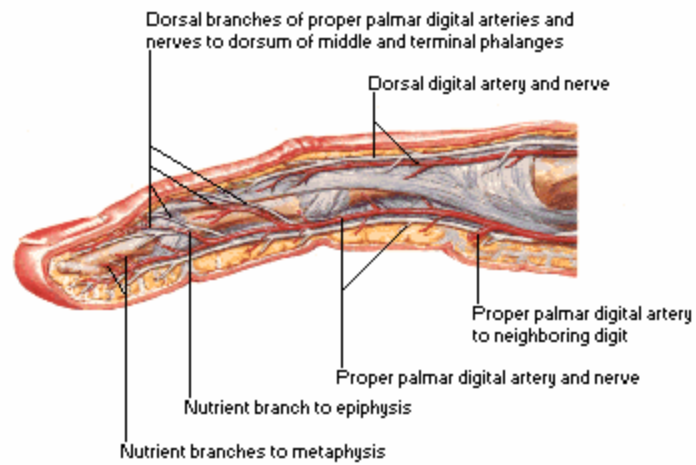
Sagittal Section



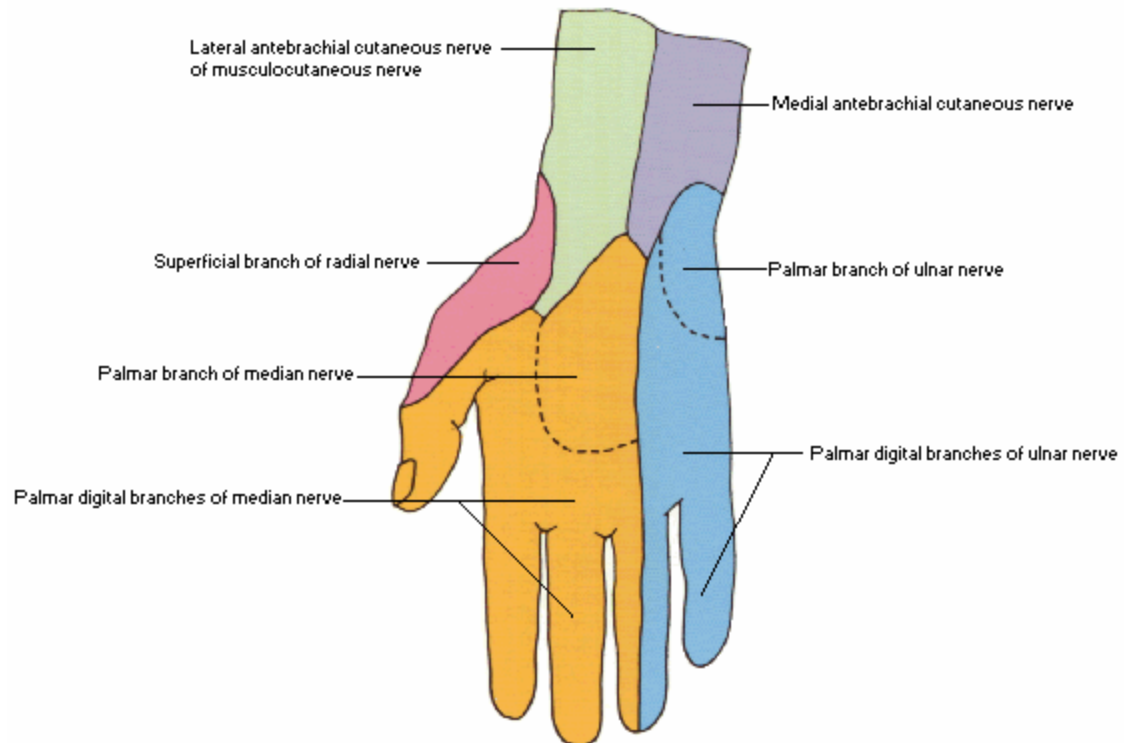
Cross Section through Distal Phalanx



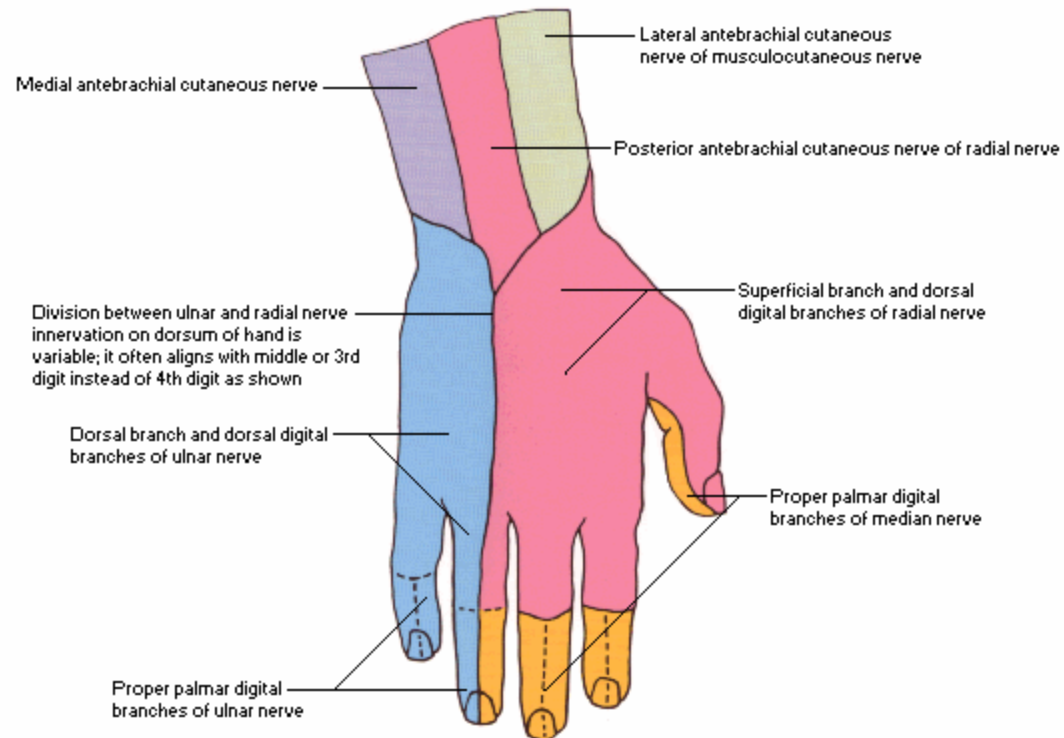
Arteries and Nerves

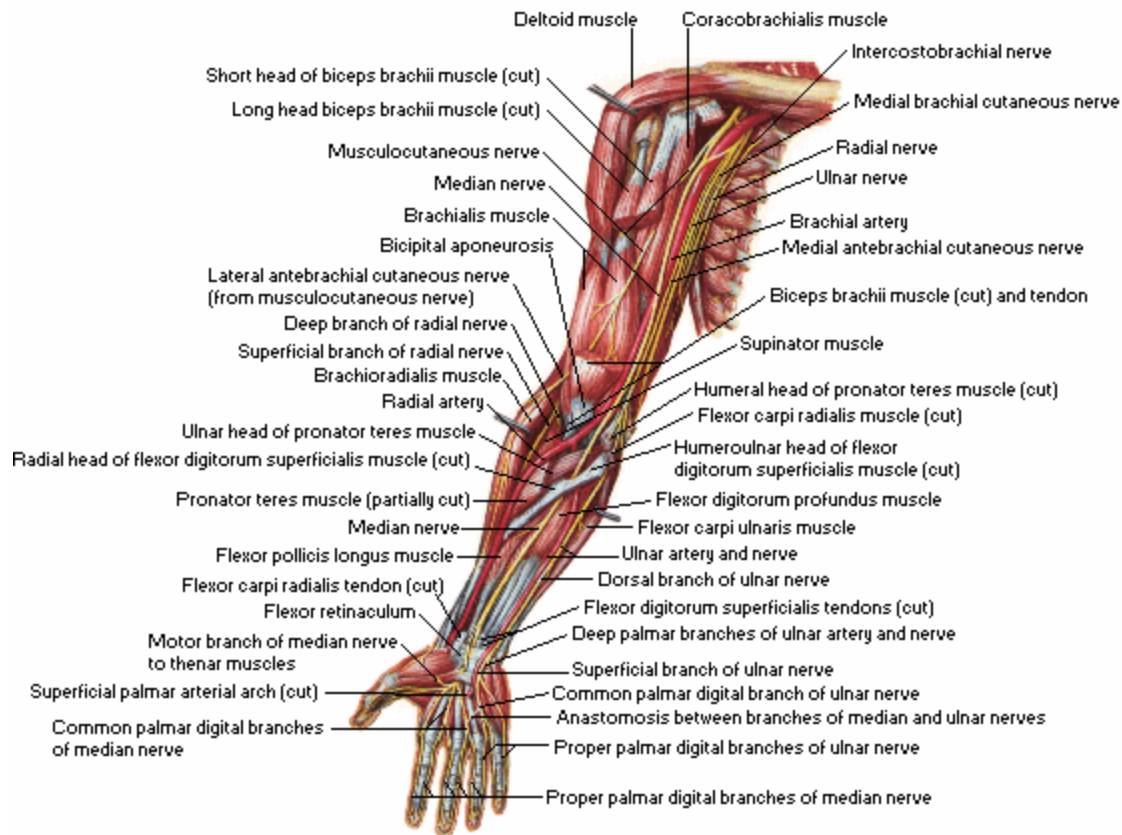


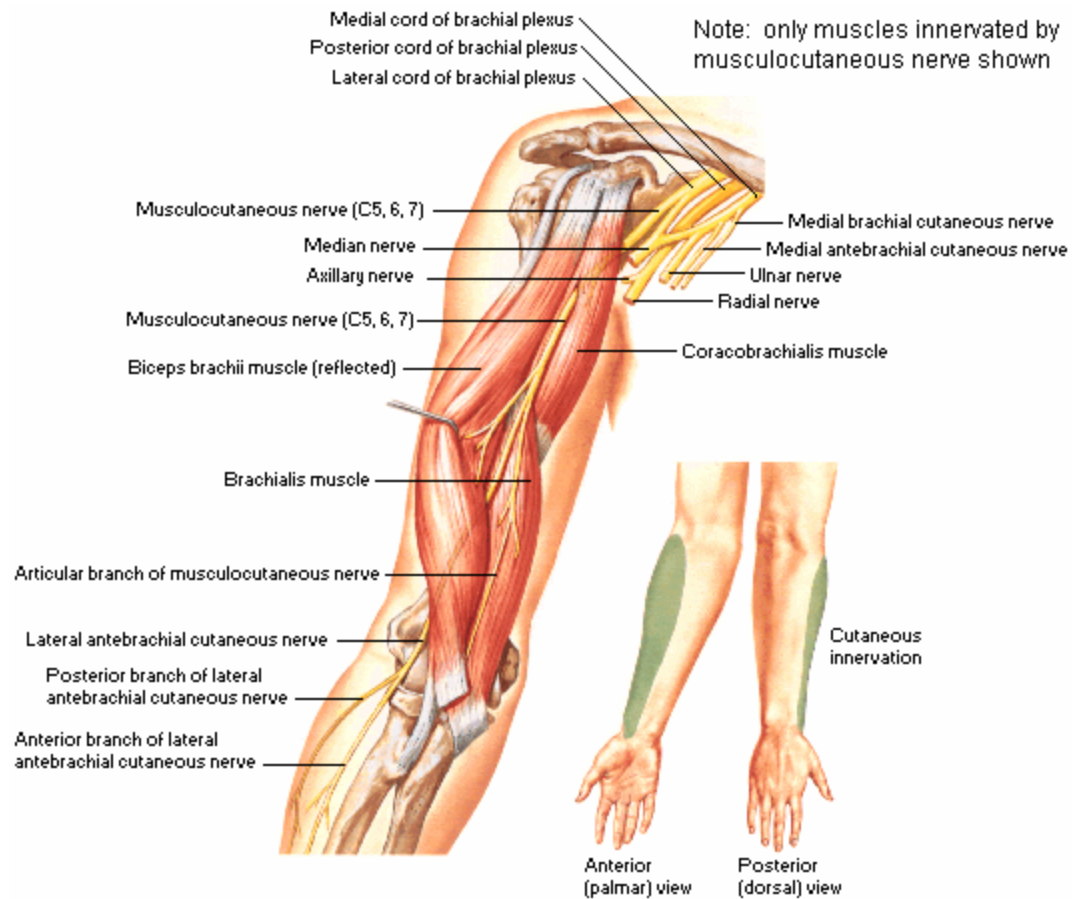
Anterior [Palmar] View

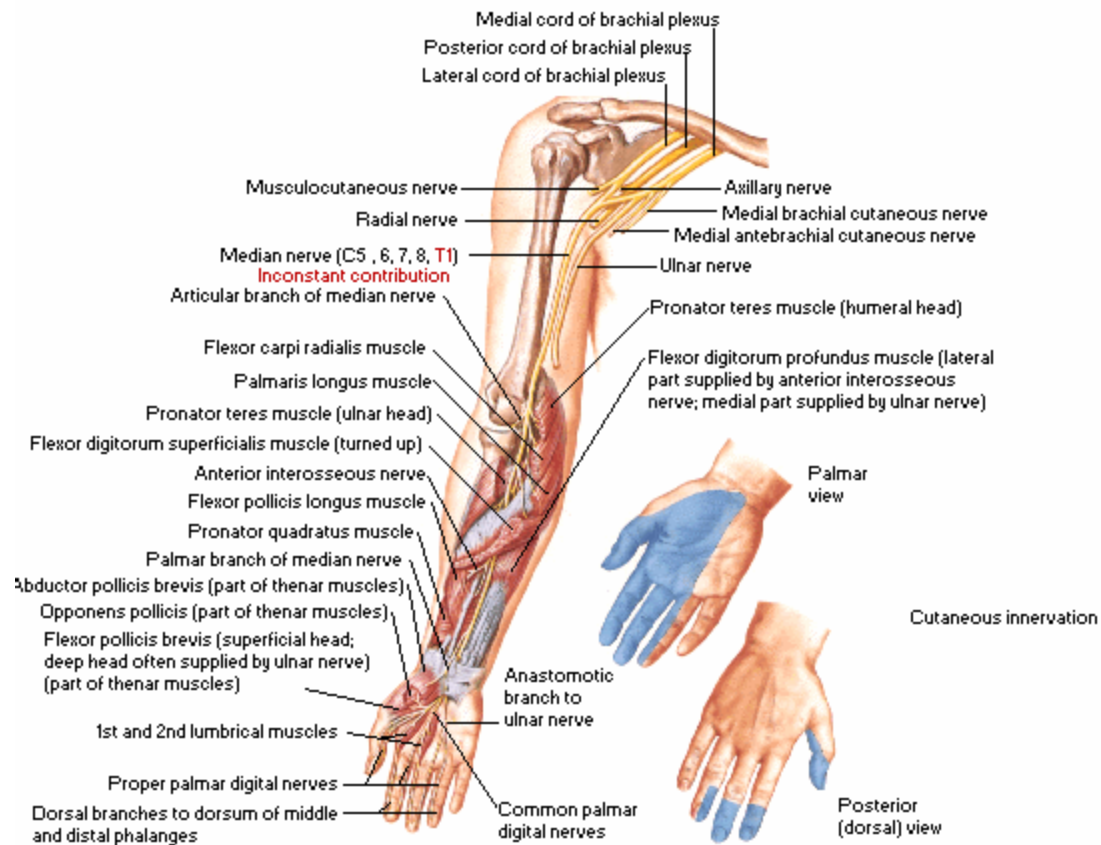


Posterior [Dorsal] View

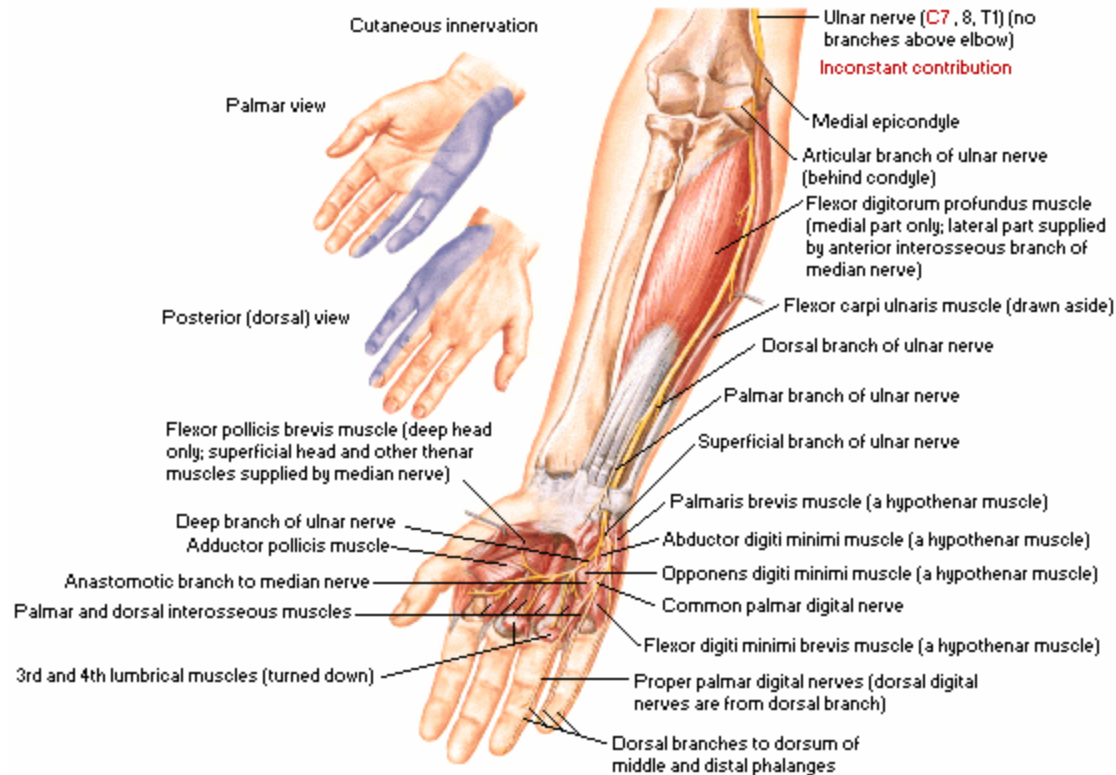


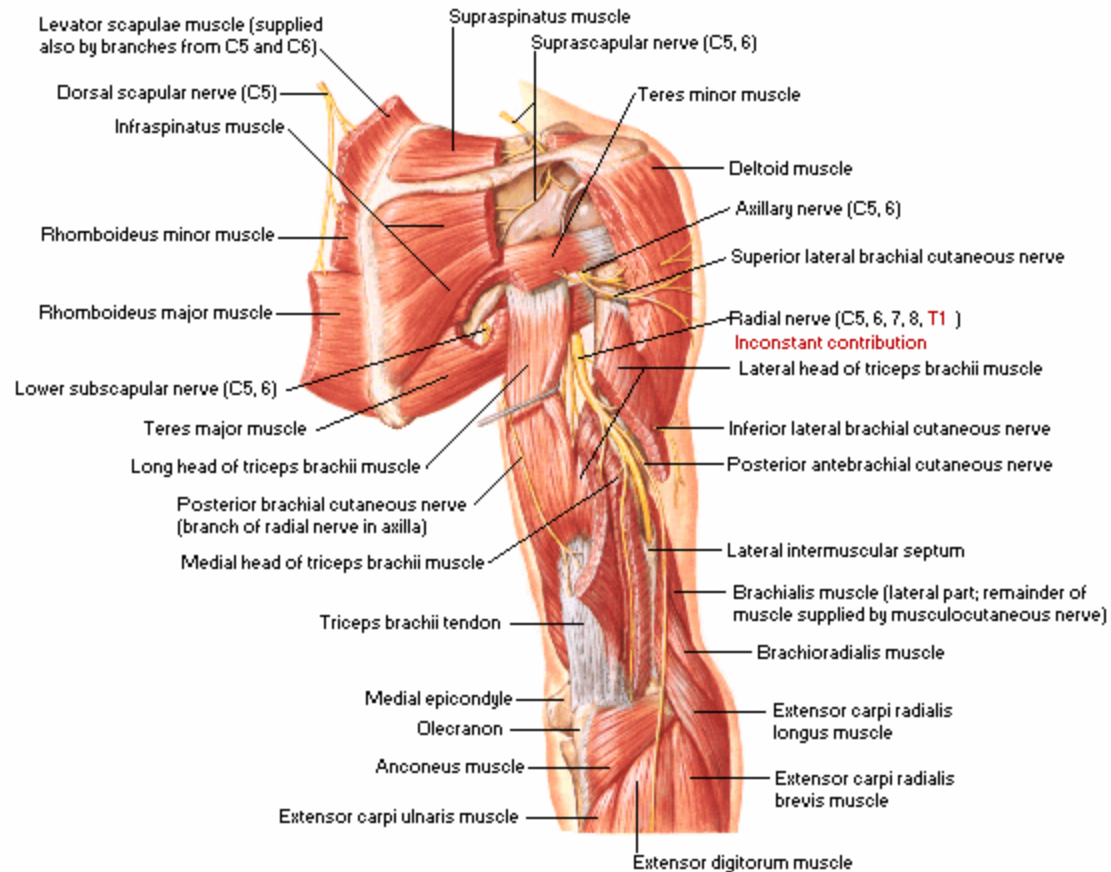




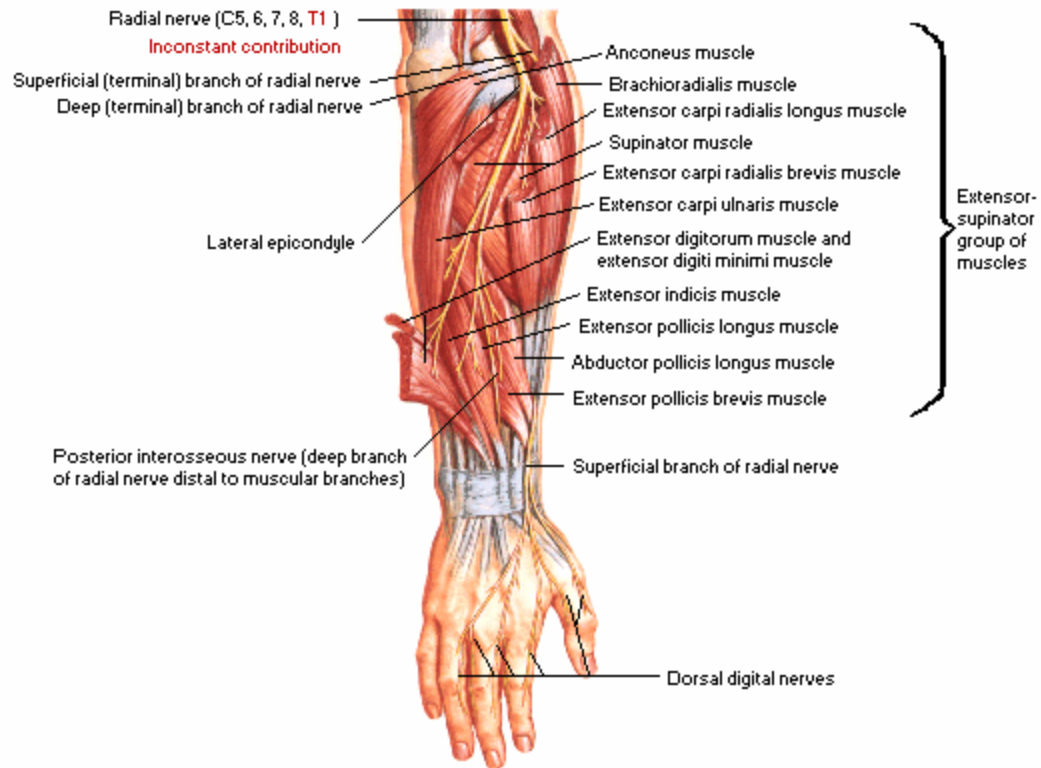


Note: only muscles innervated by ulnar nerve shown

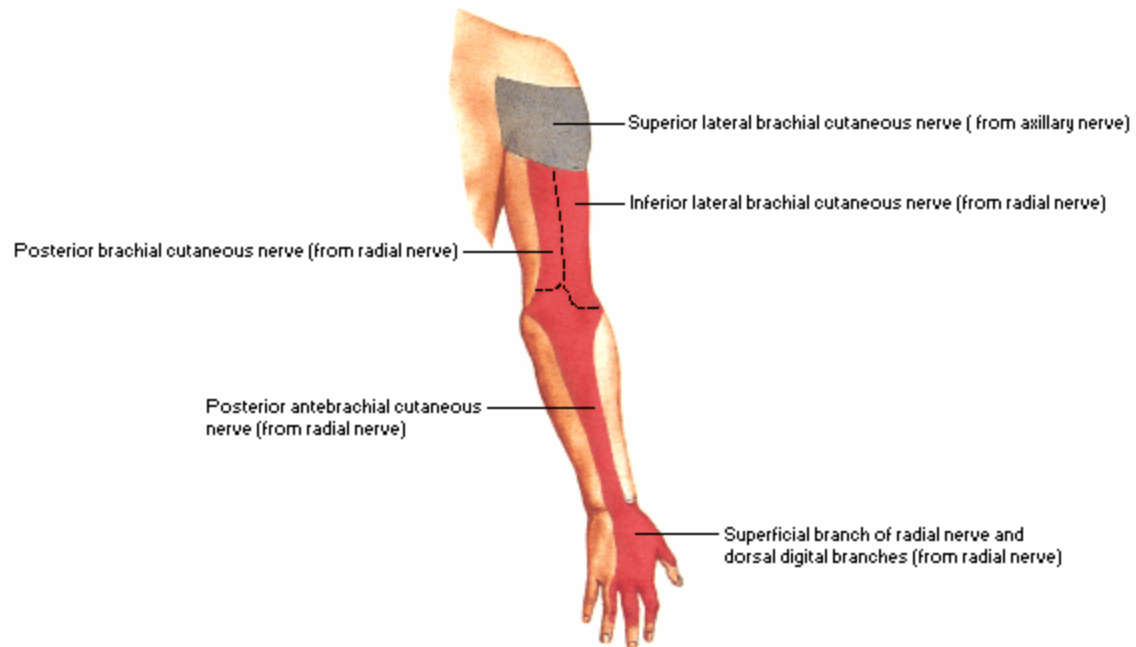




Posterior View

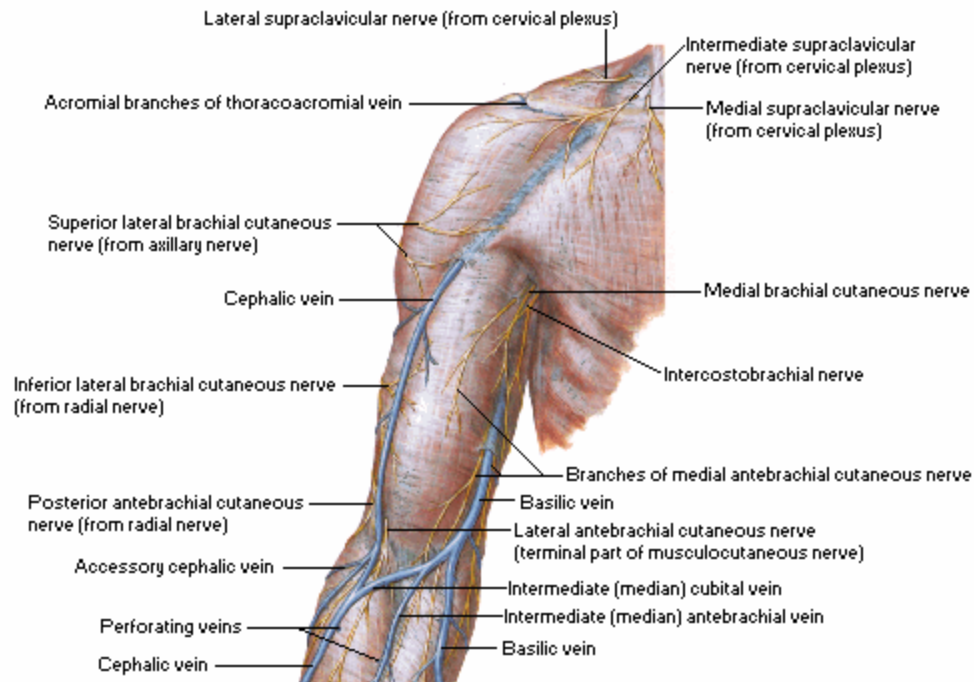


Cutaneous Innervation

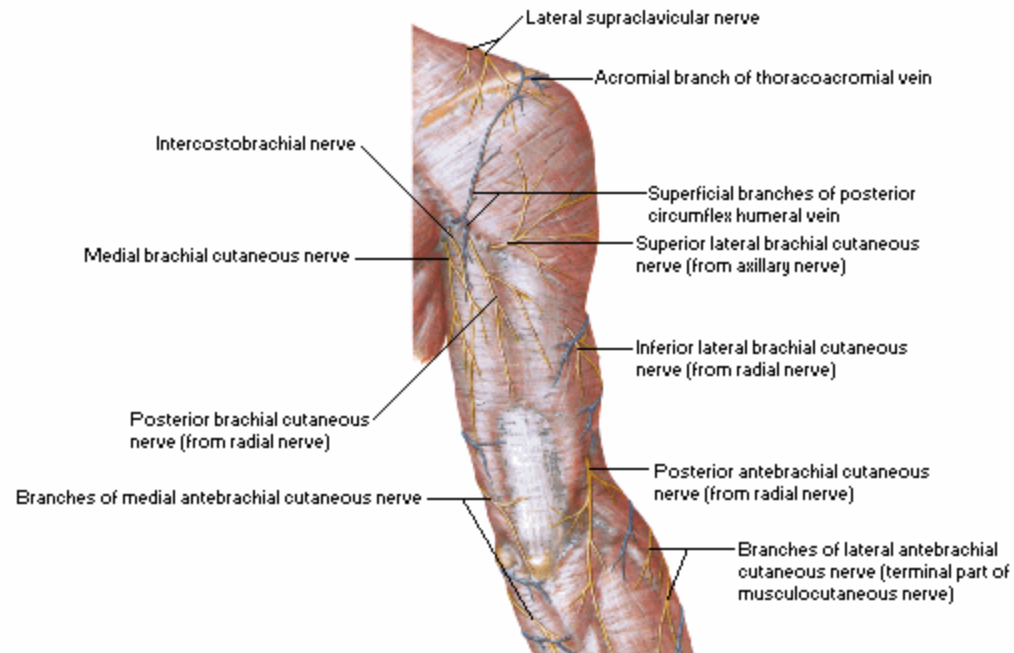


Posterior View

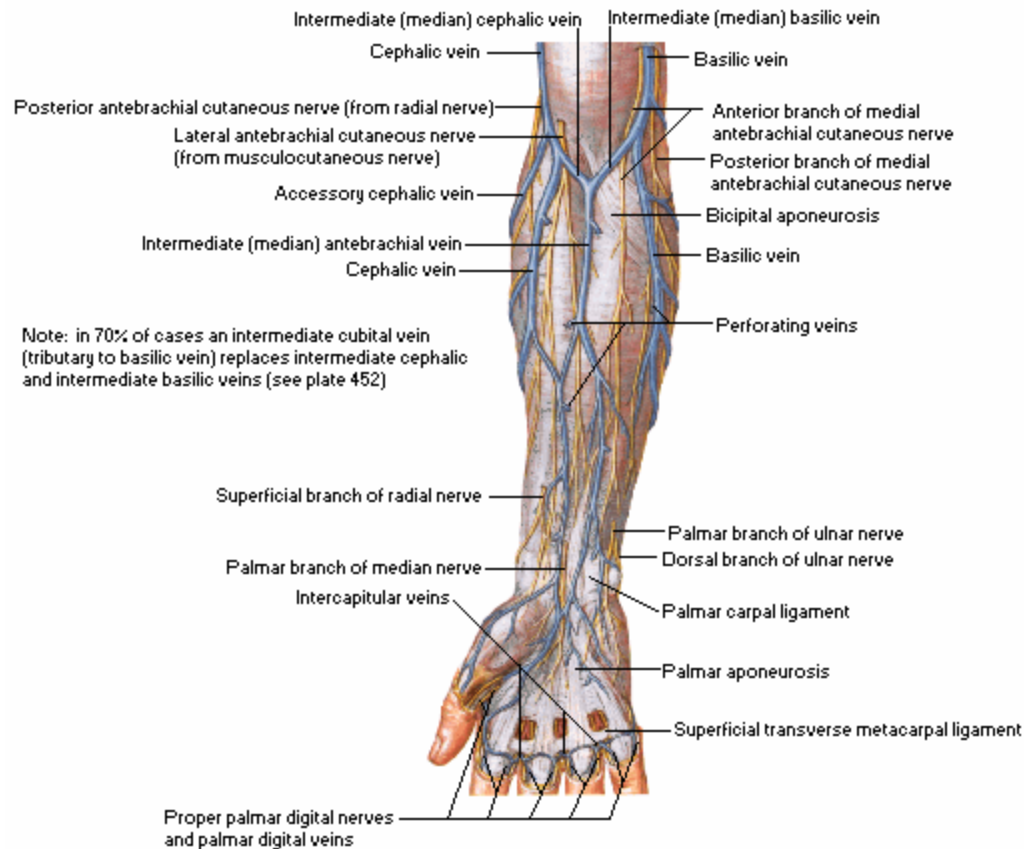
Anterior View



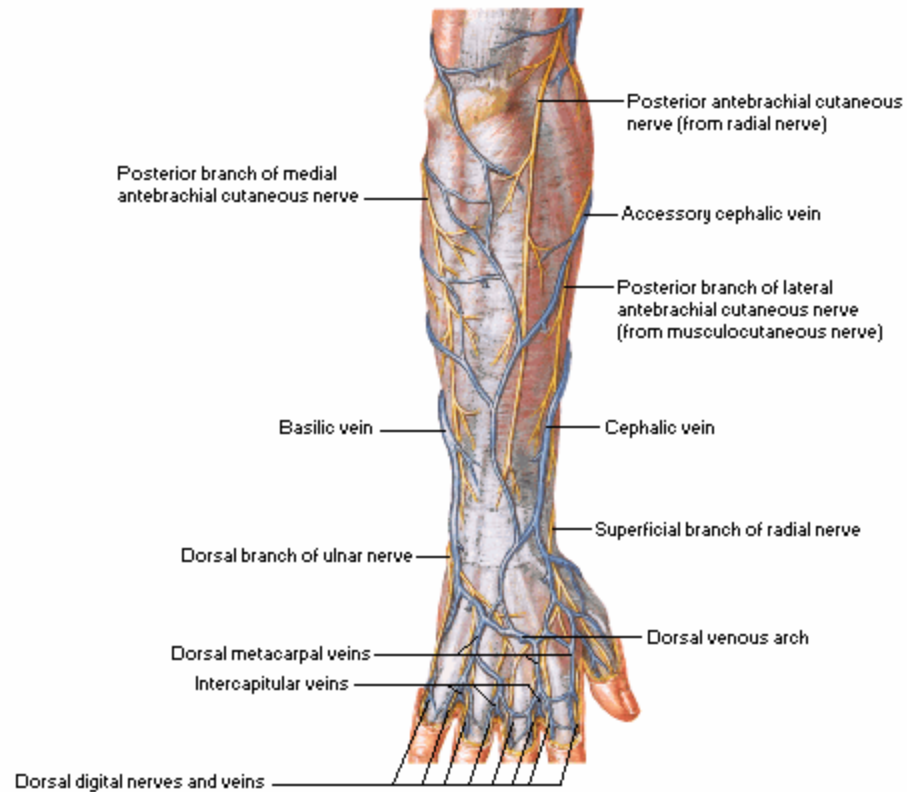
Posterior View



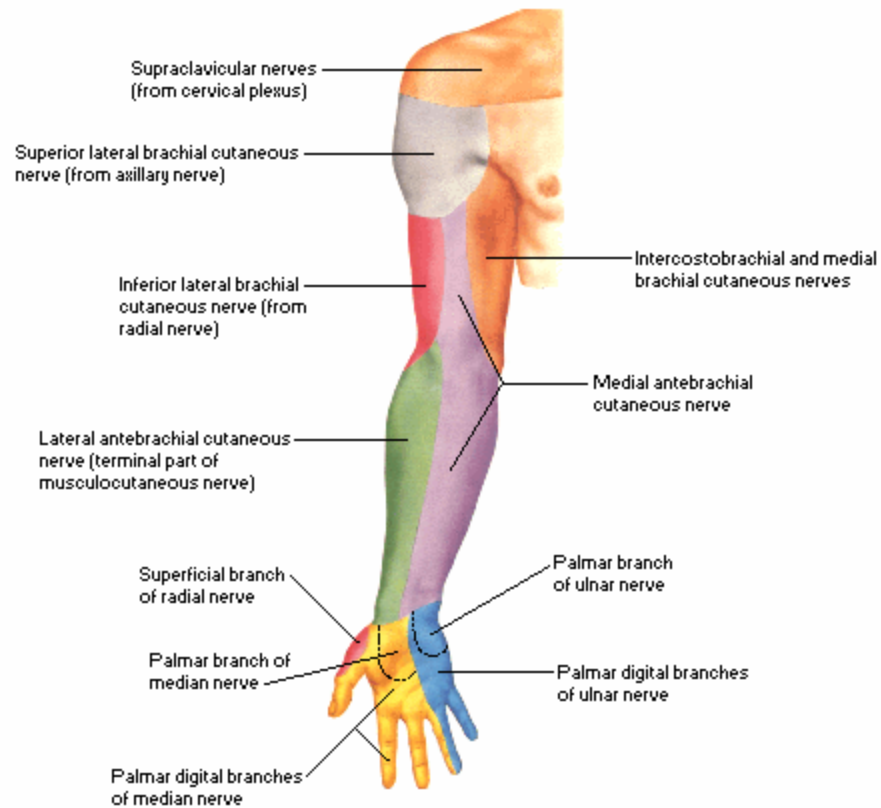
Anterior (Palmar) View



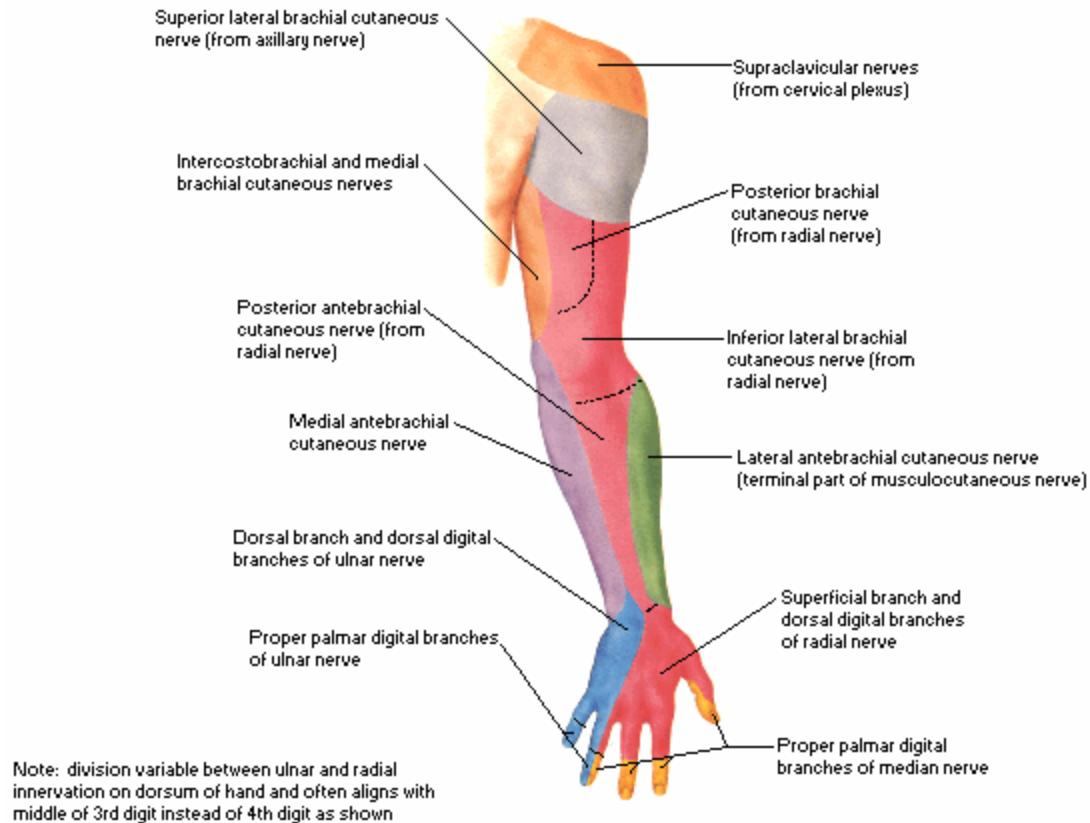
Posterior (Dorsal) View



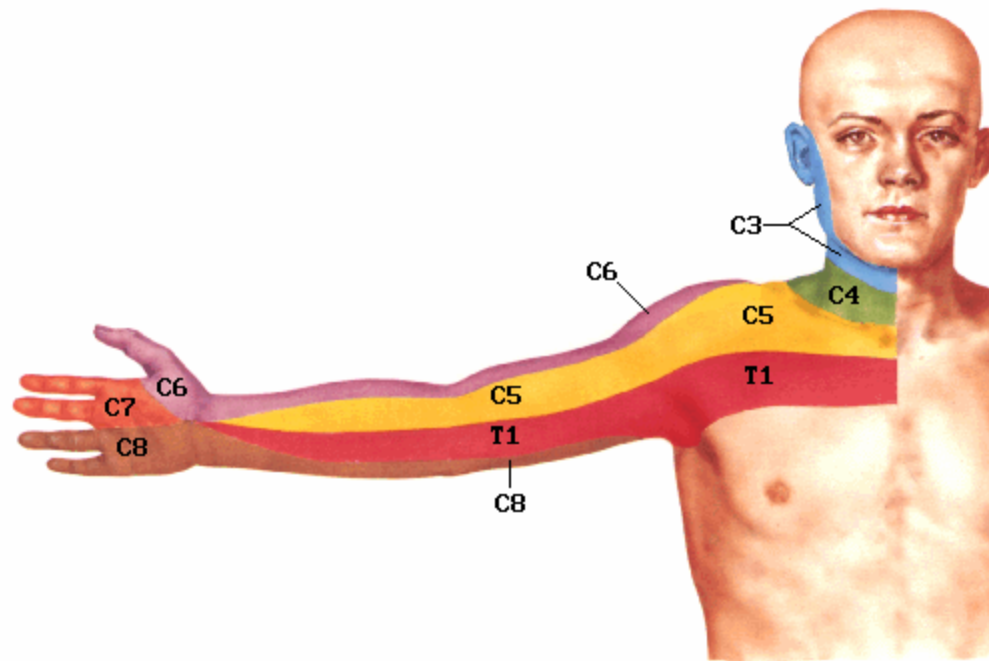
Anterior [Palmar] View



Posterior [Dorsal] View

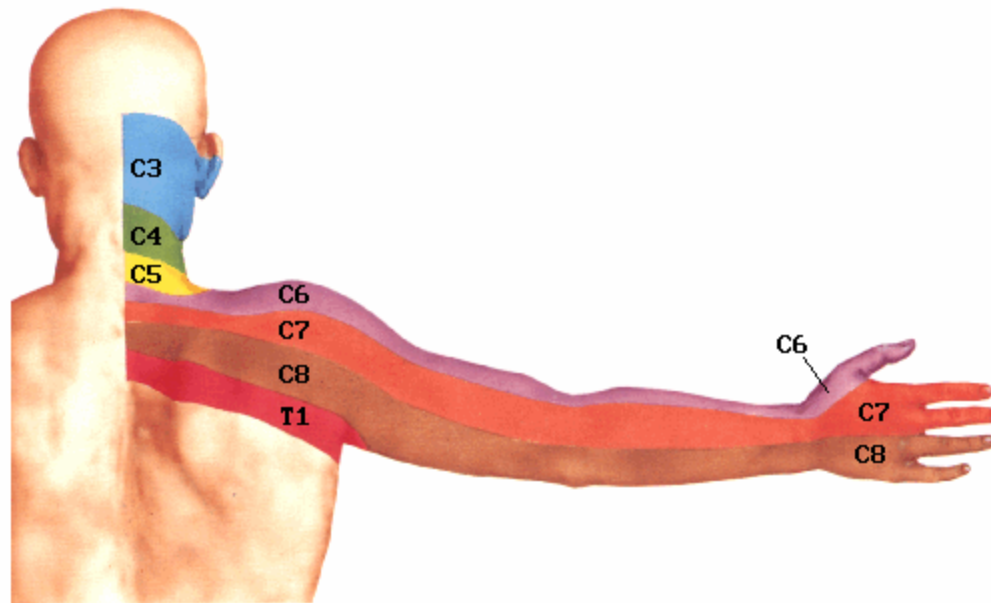


Anterior View

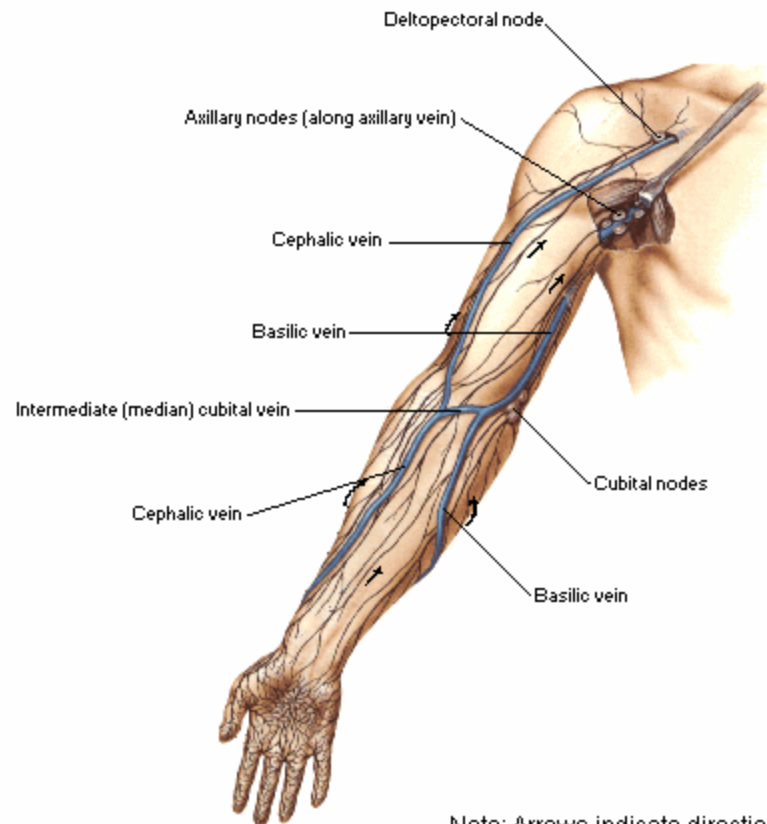


Note: schematic demarcation of dermatomes shown as distinct segments.
There is actually considerable overlap between adjacent dermatomes.

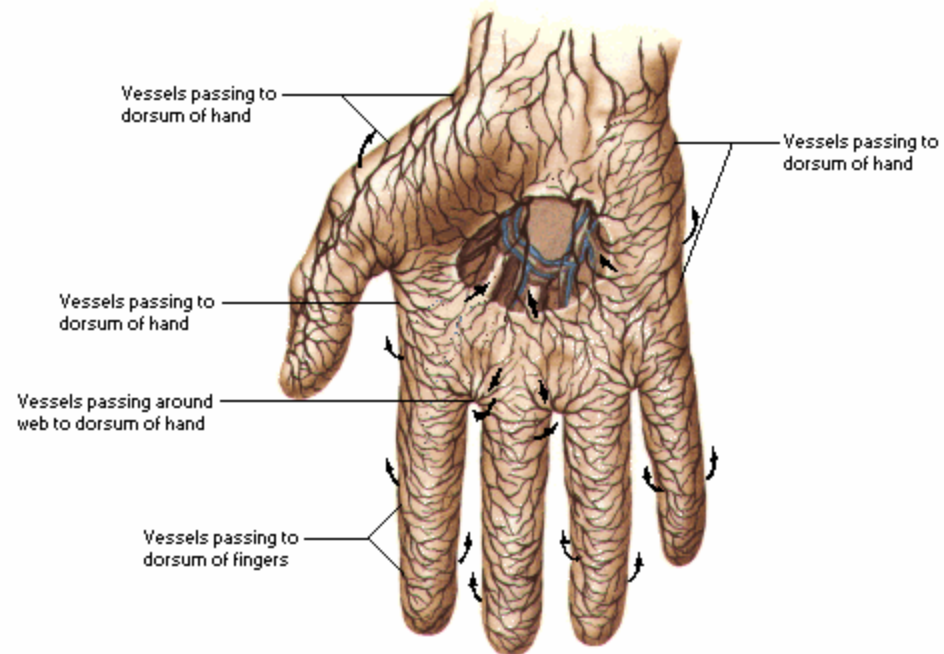
Posterior View



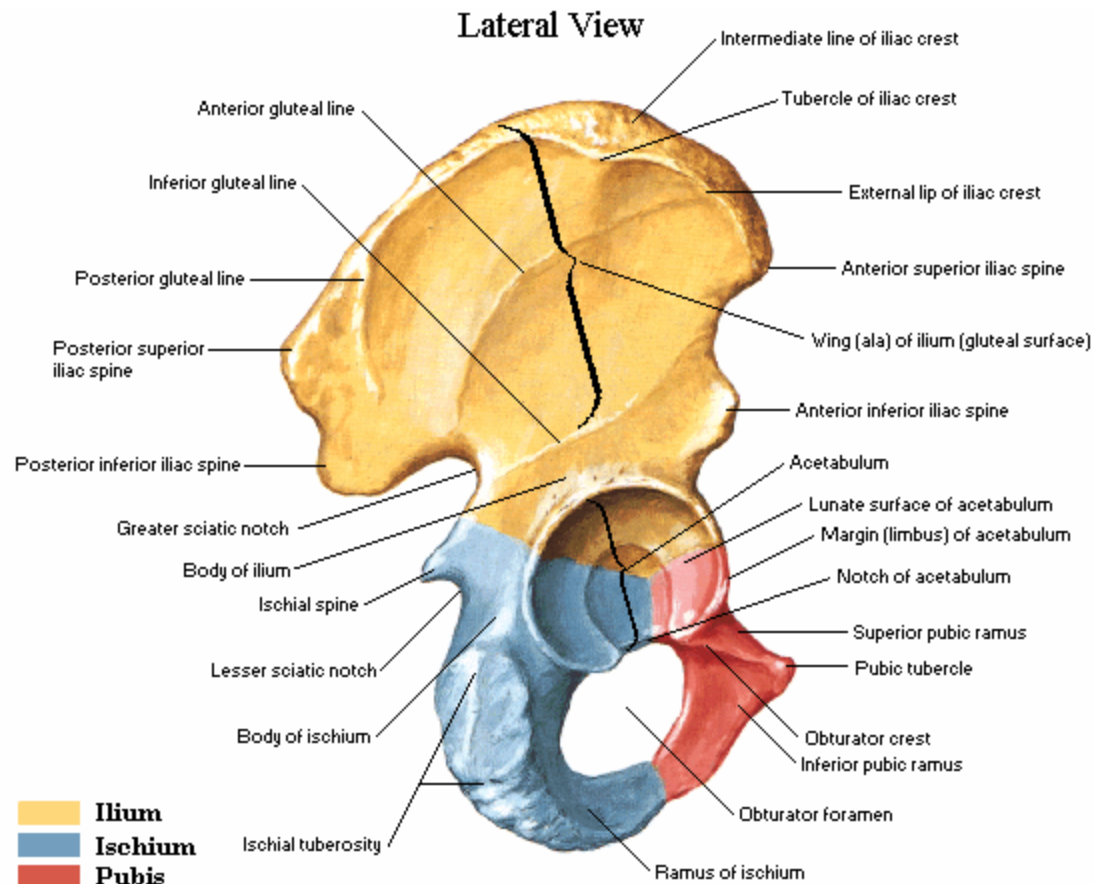
Note: schematic demarcation of dermatomes shown as distinct segments. There is actually considerable overlap between adjacent dermatomes.



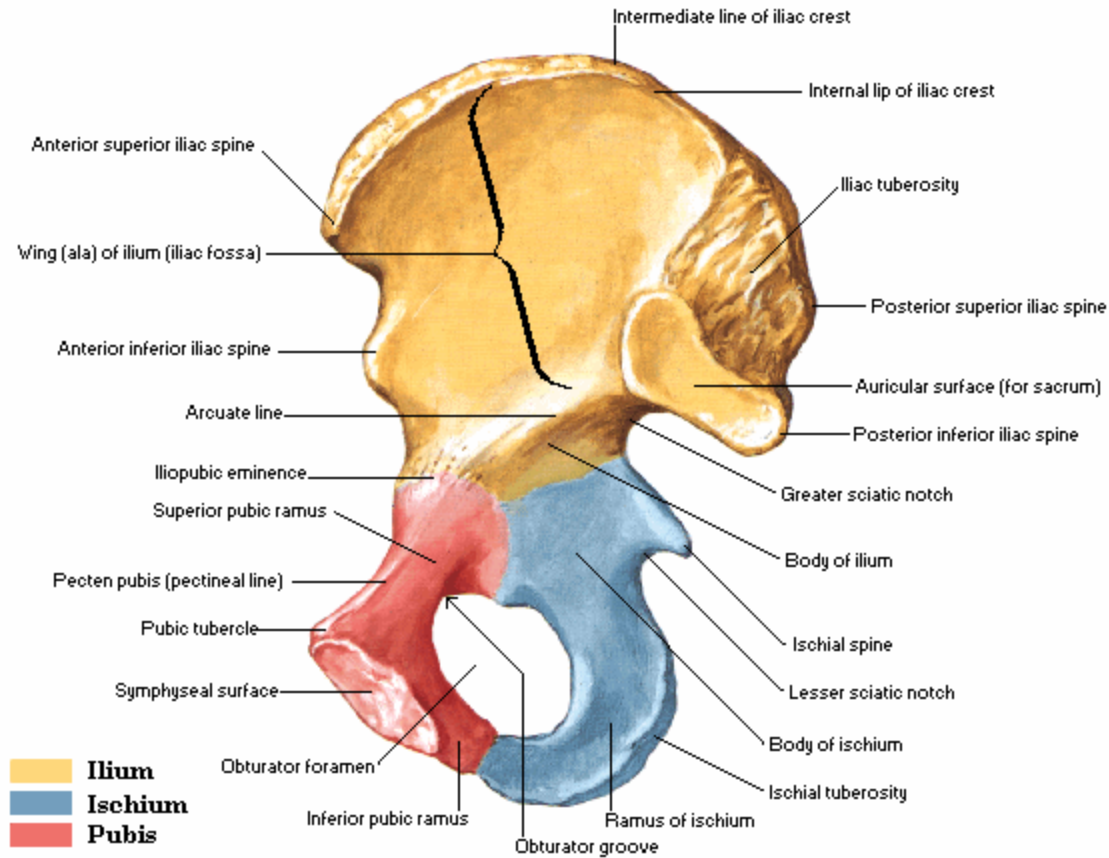
Note: Arrows indicate direction of drainage.



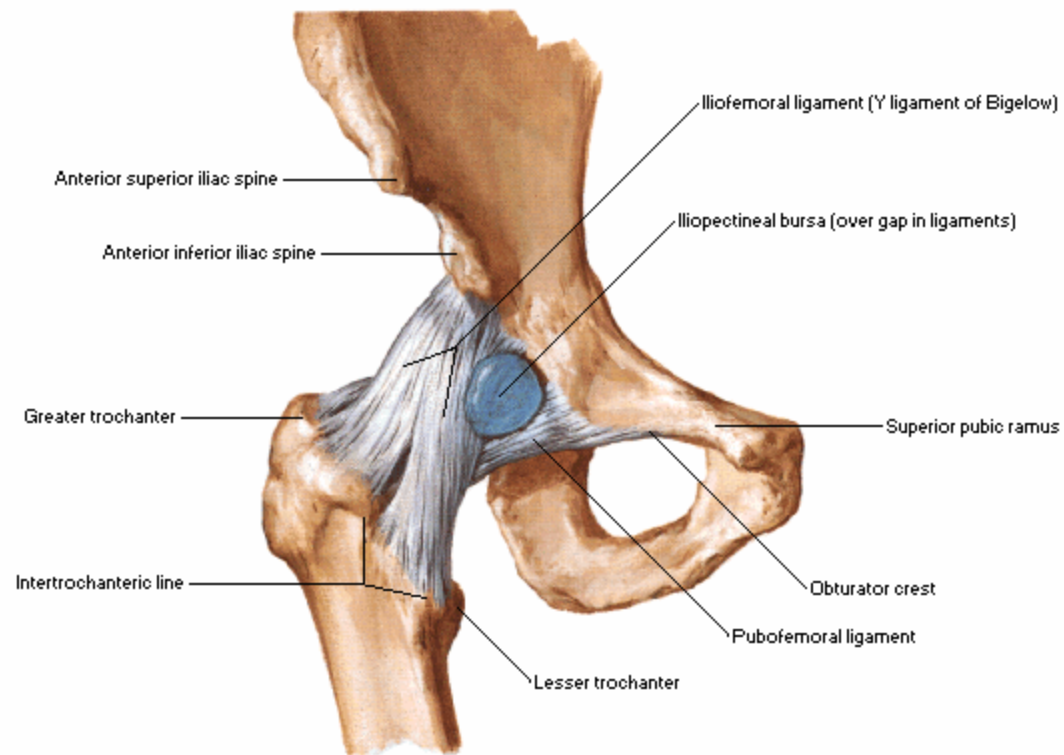
Note: Arrows indicate direction of drainage.



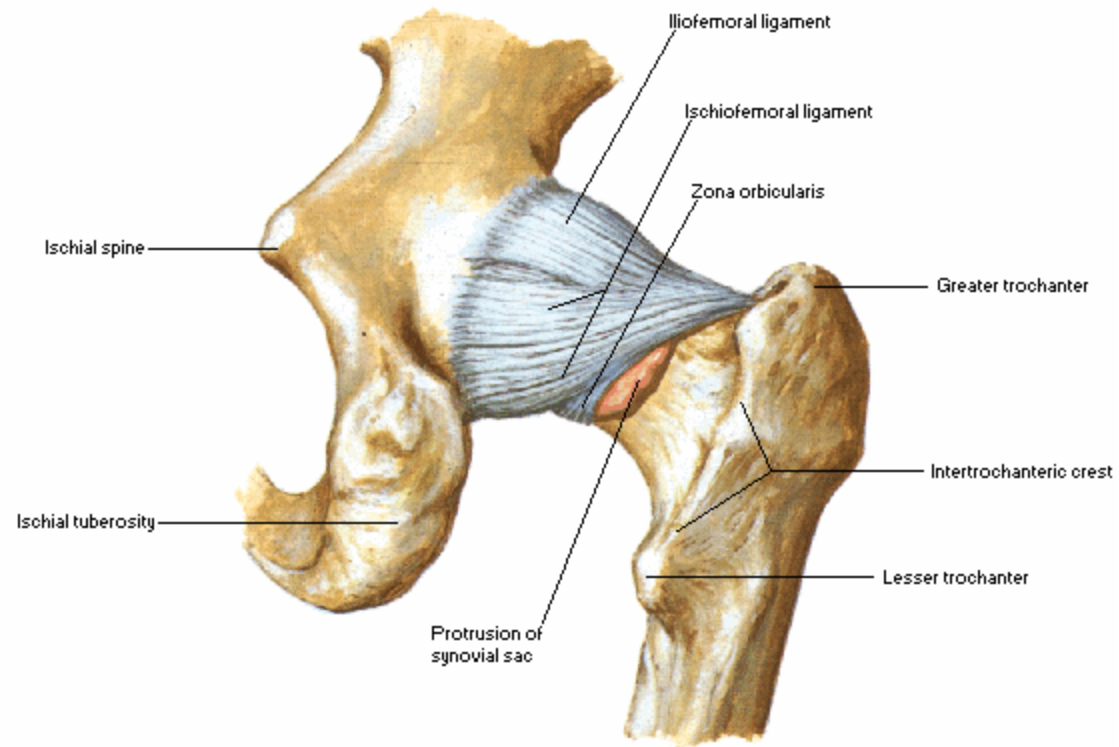
Medial View



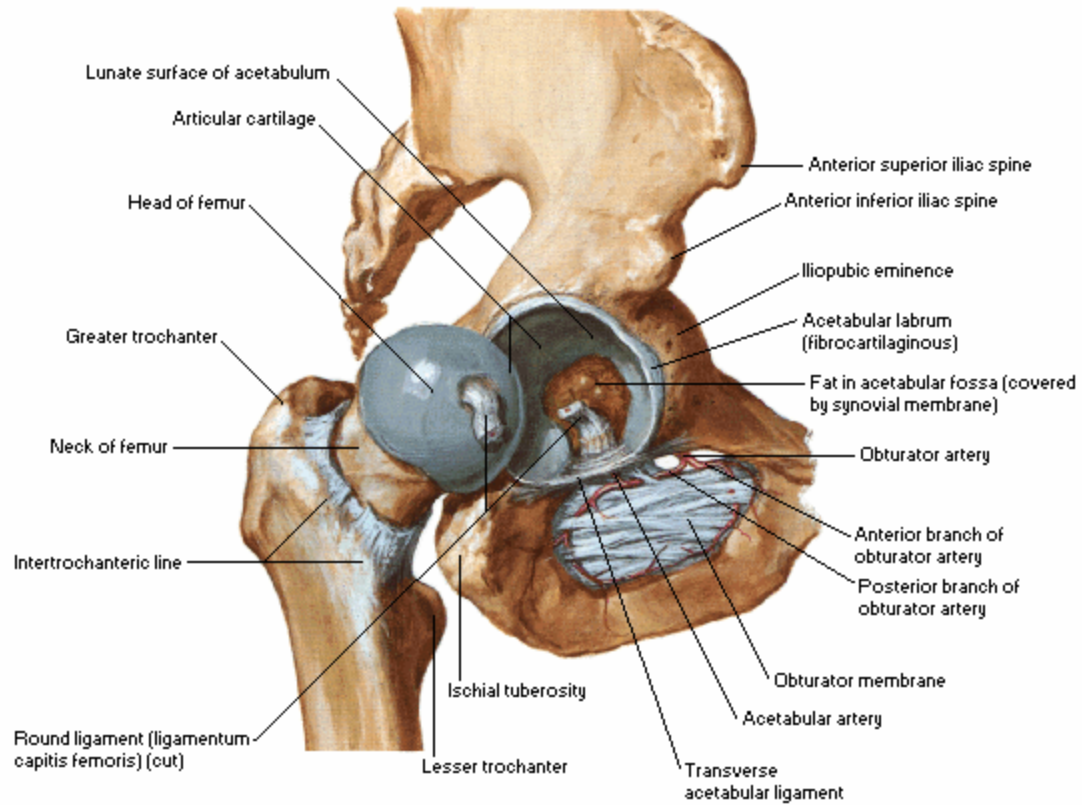
Anterior View

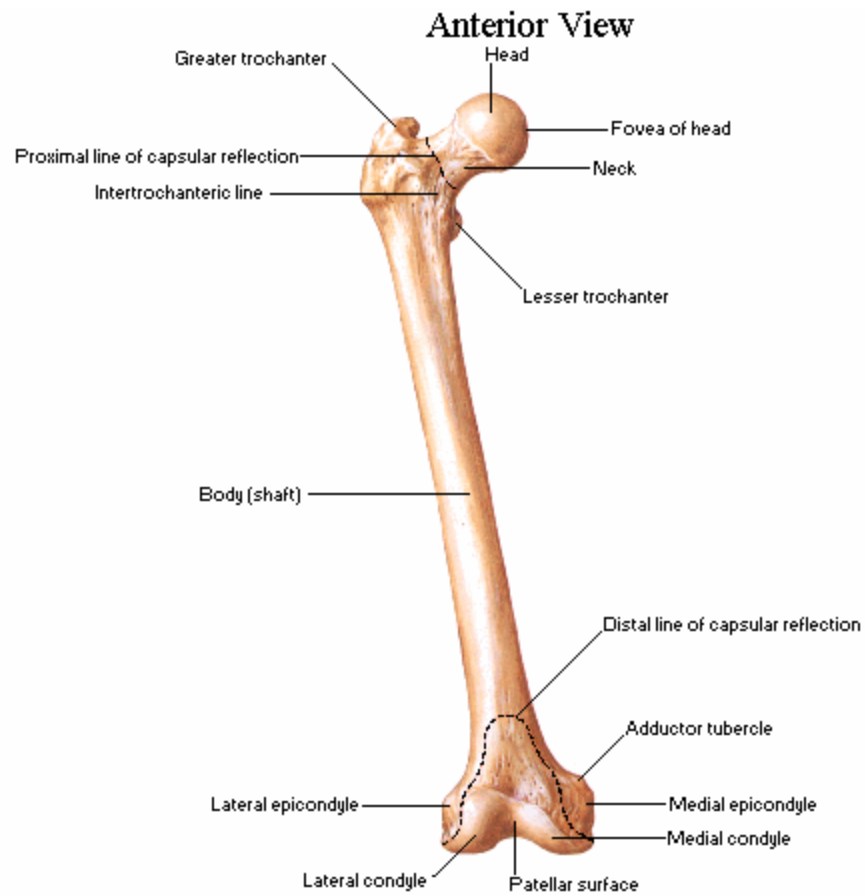


Posterior View

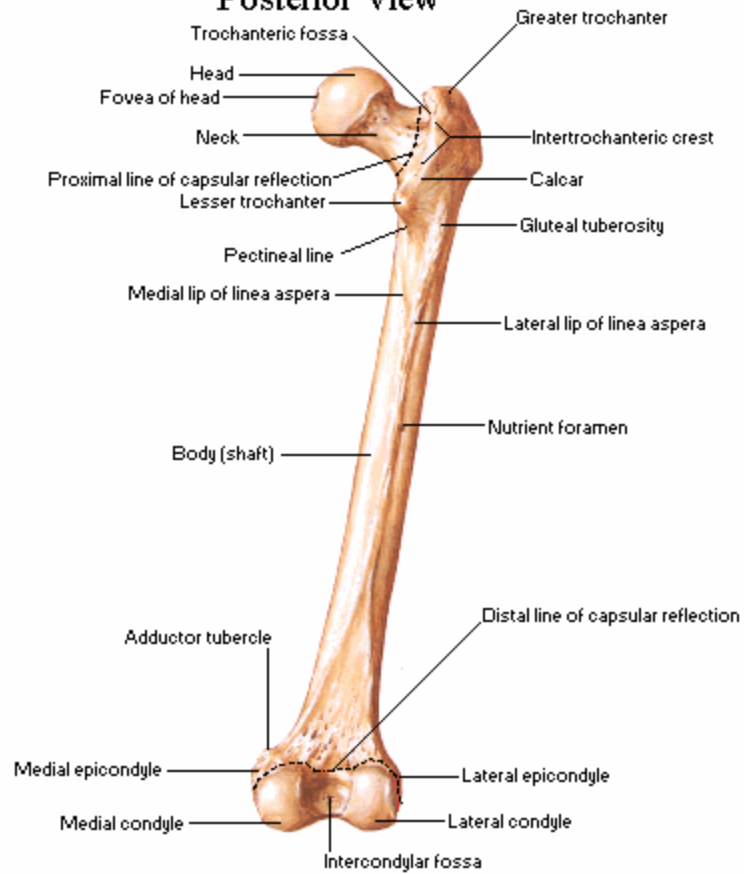


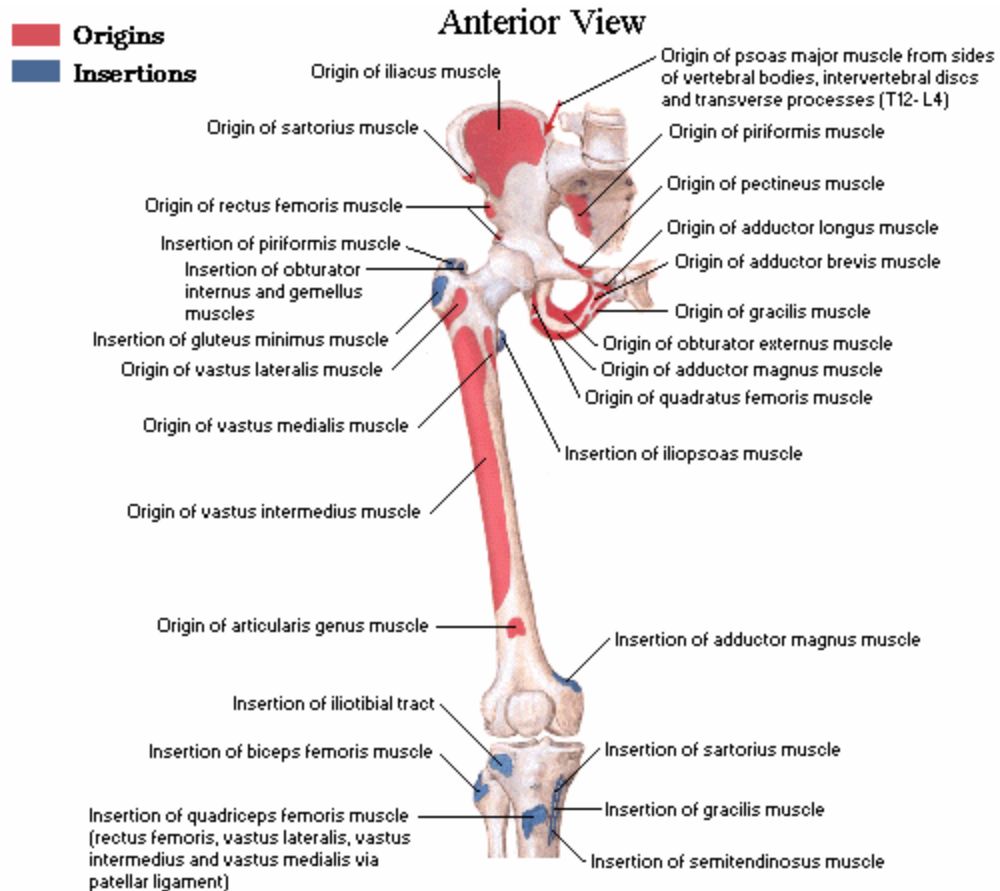
Lateral View



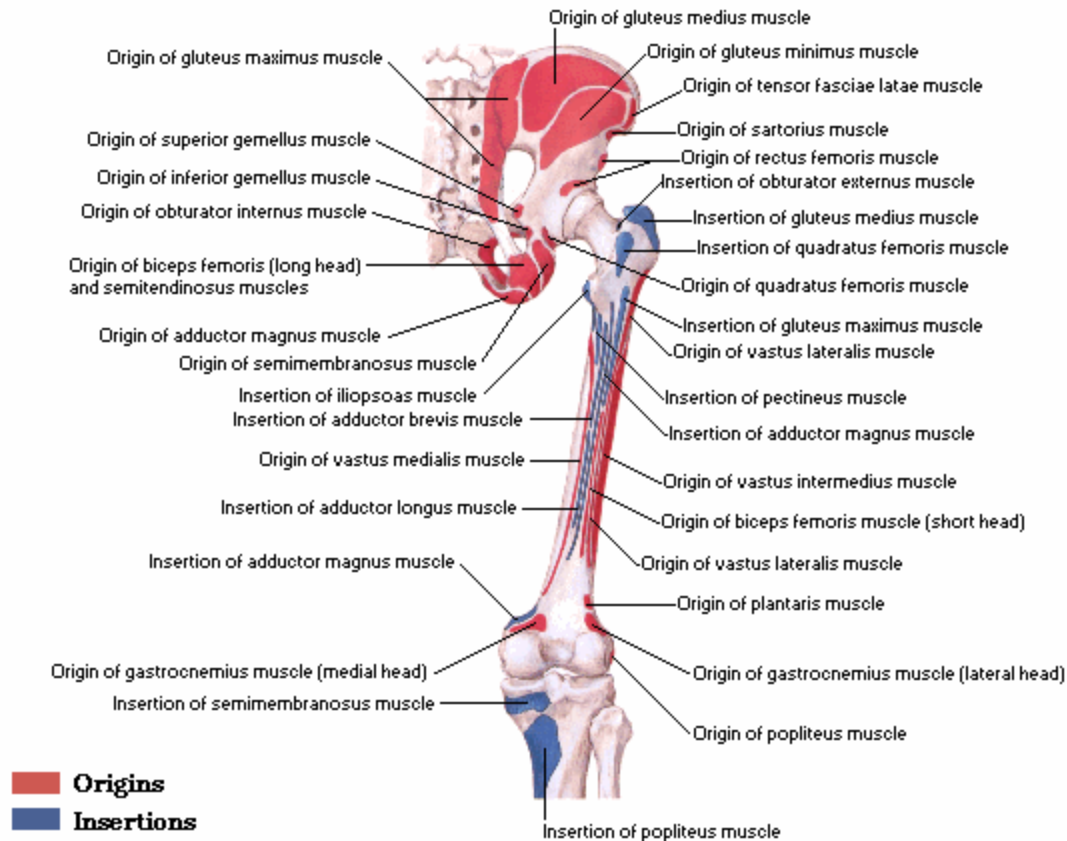


Posterior View

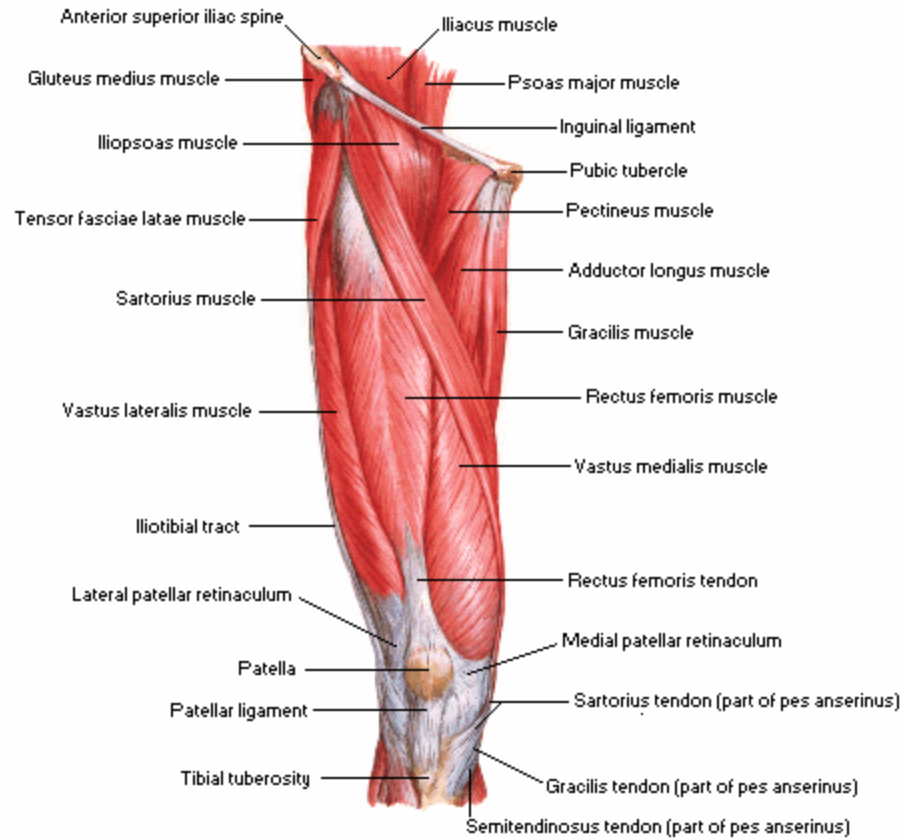




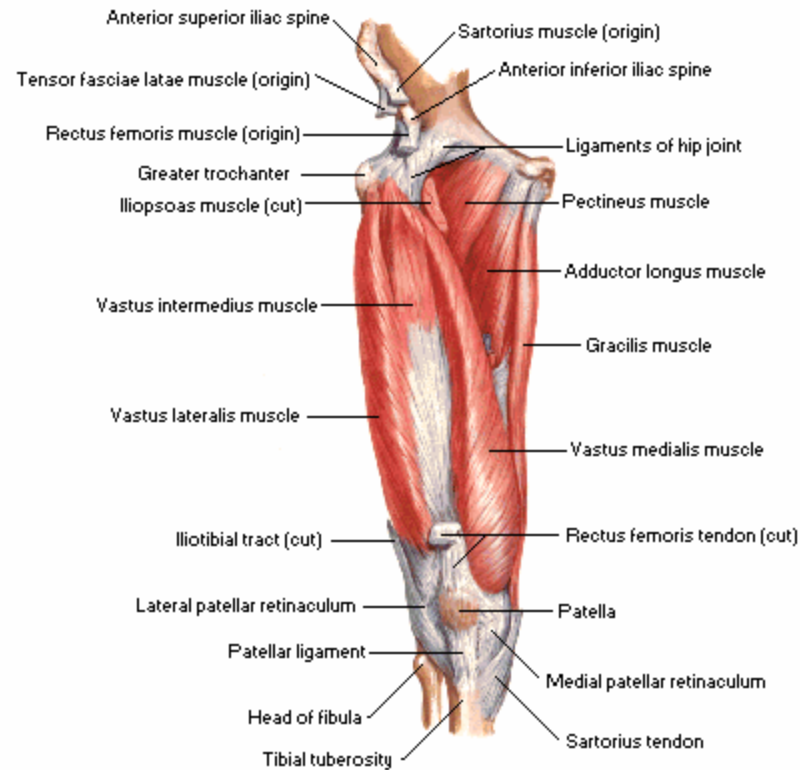
Posterior View



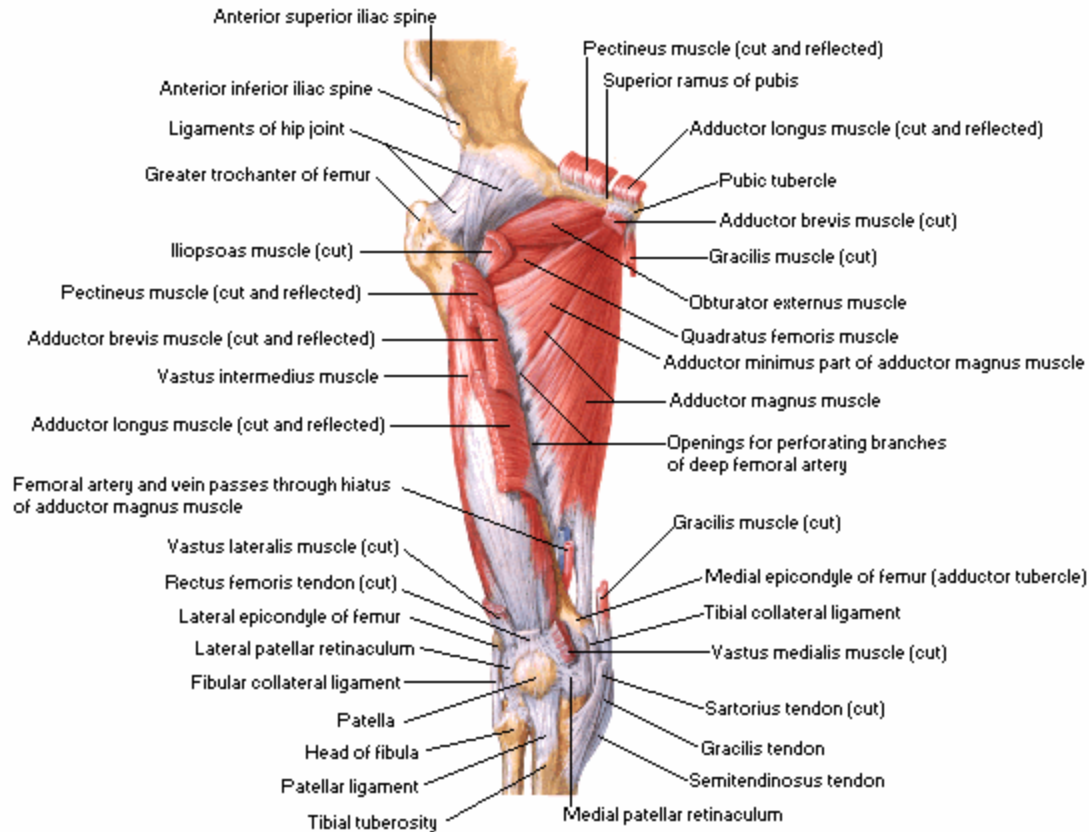
Anterior View - Superficial Dissection



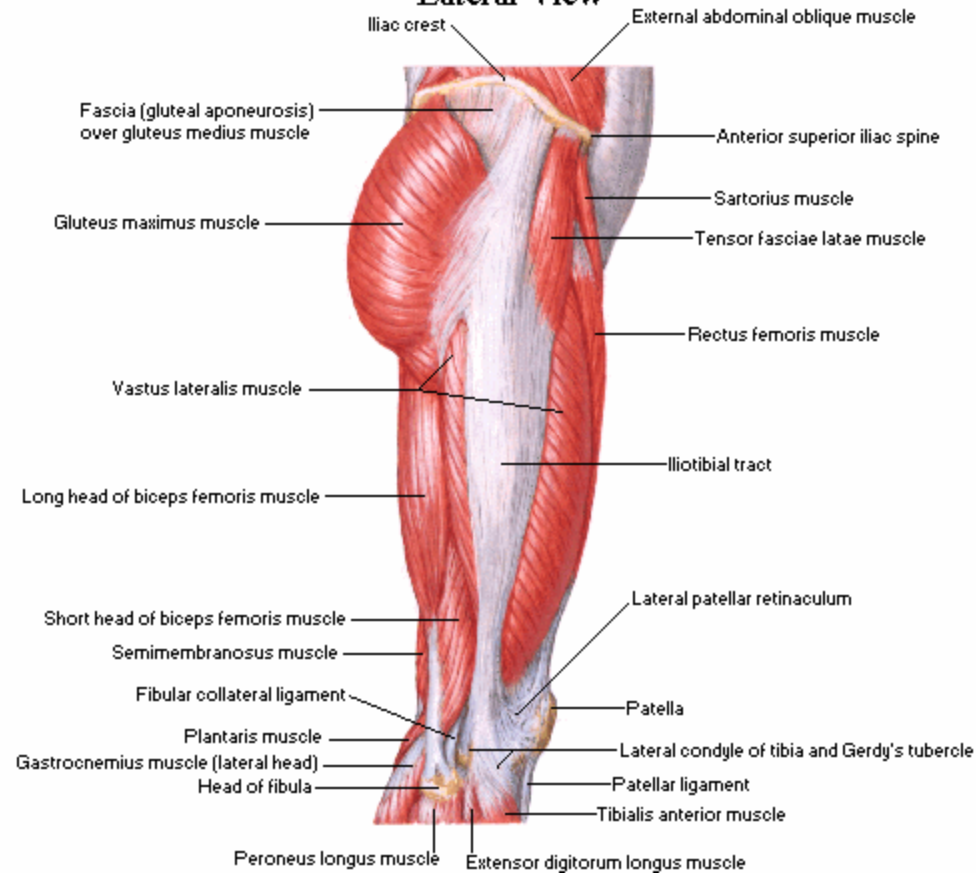
Anterior View - Deeper Dissection



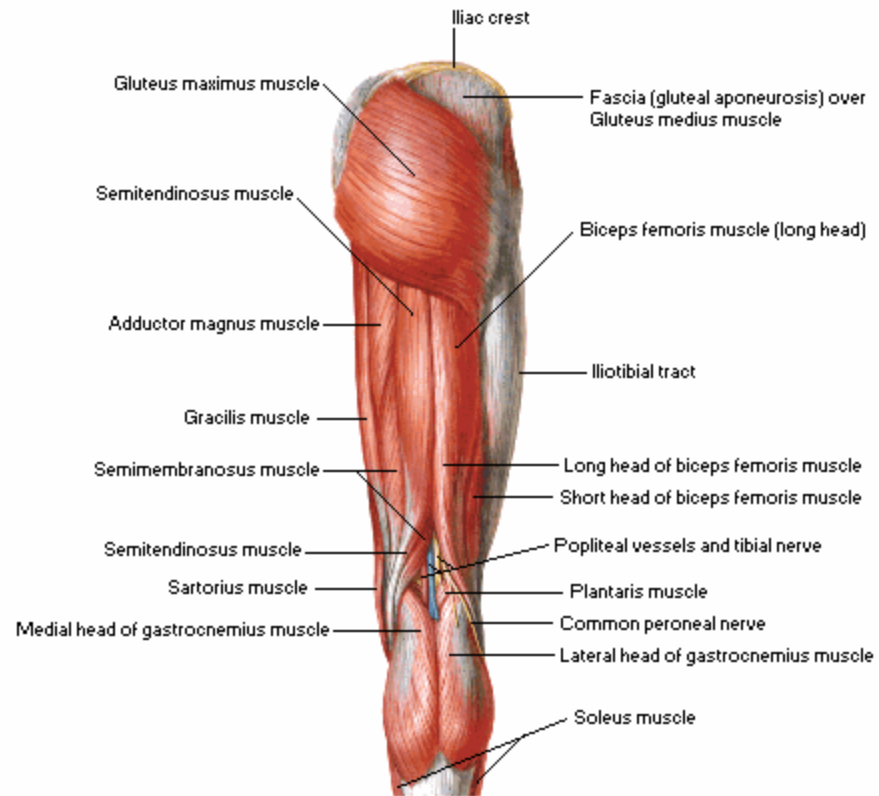
Anterior View - Deepest Dissection



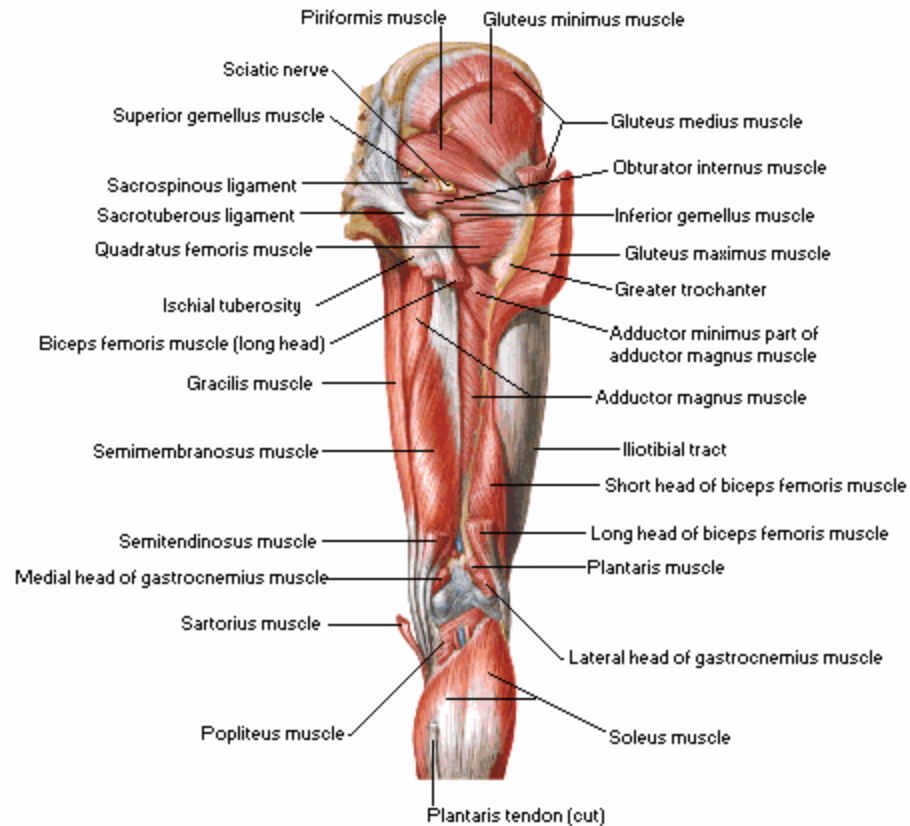
Lateral View

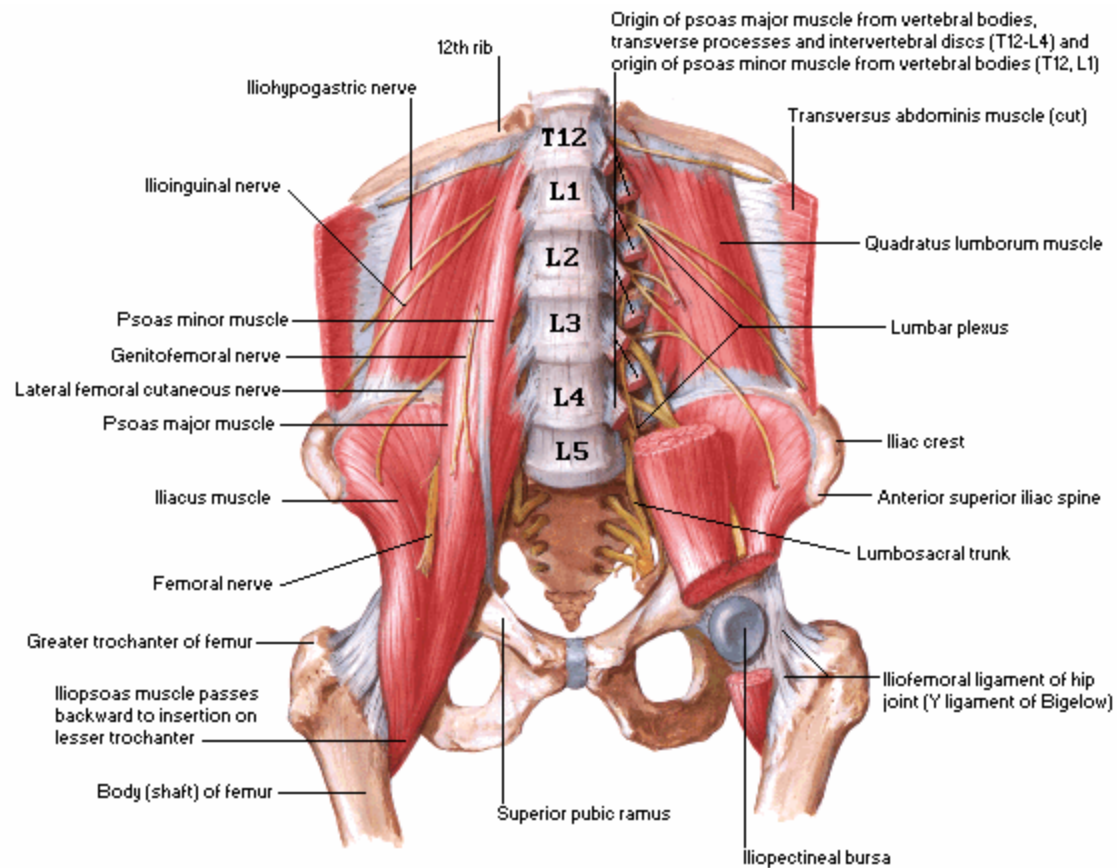


Posterior View - Superficial Dissection

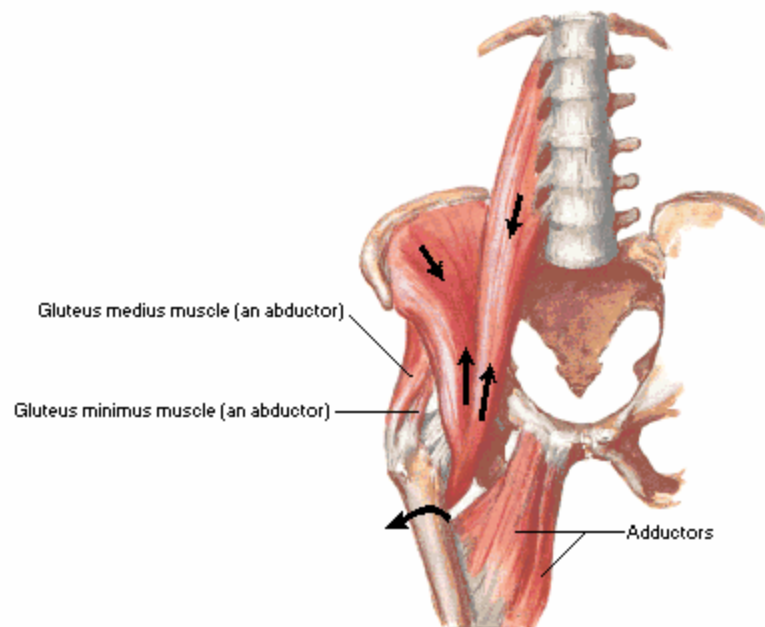


Posterior View - Deeper Dissection

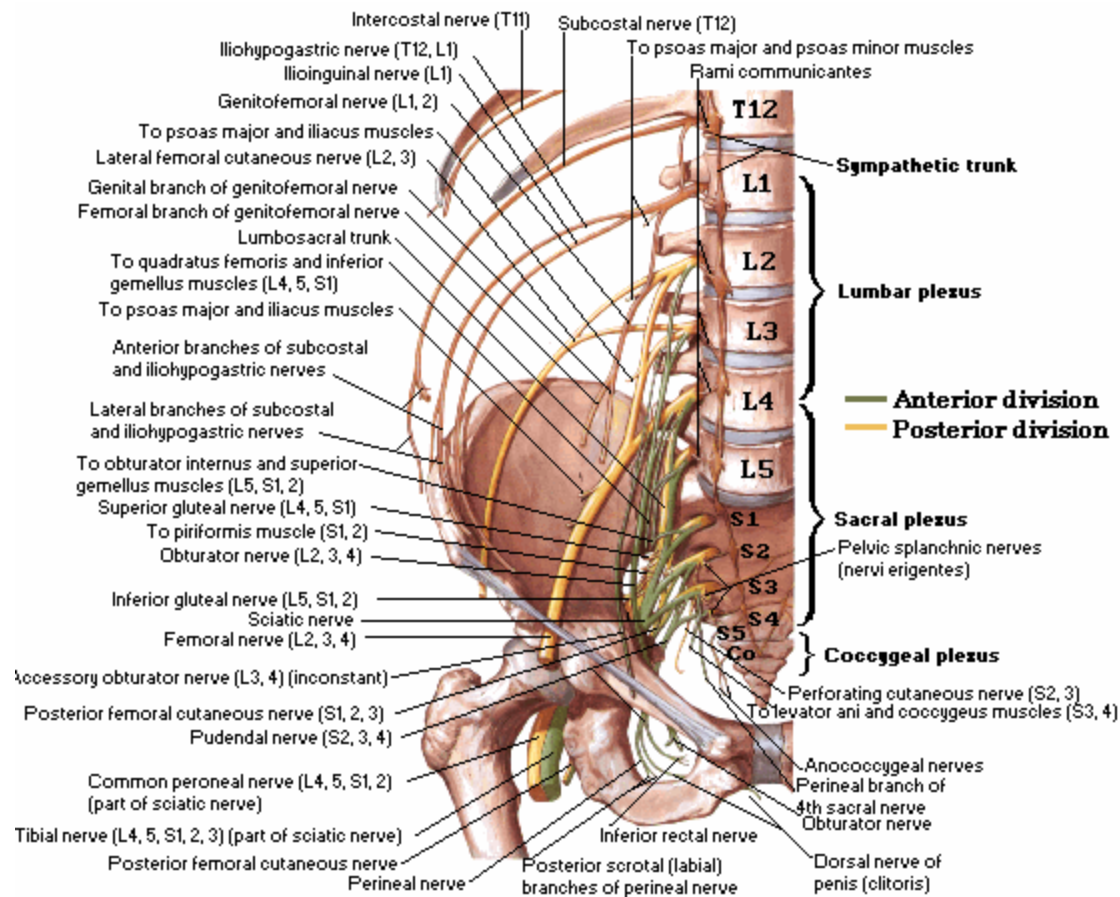




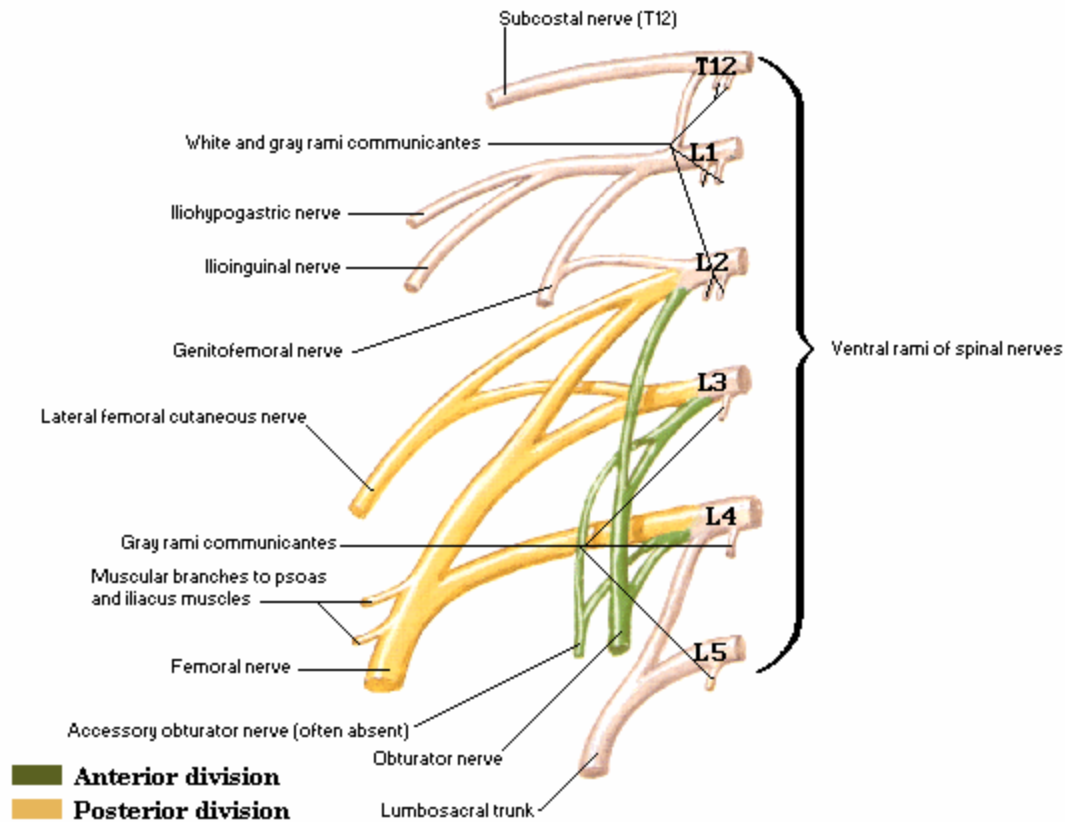
Action

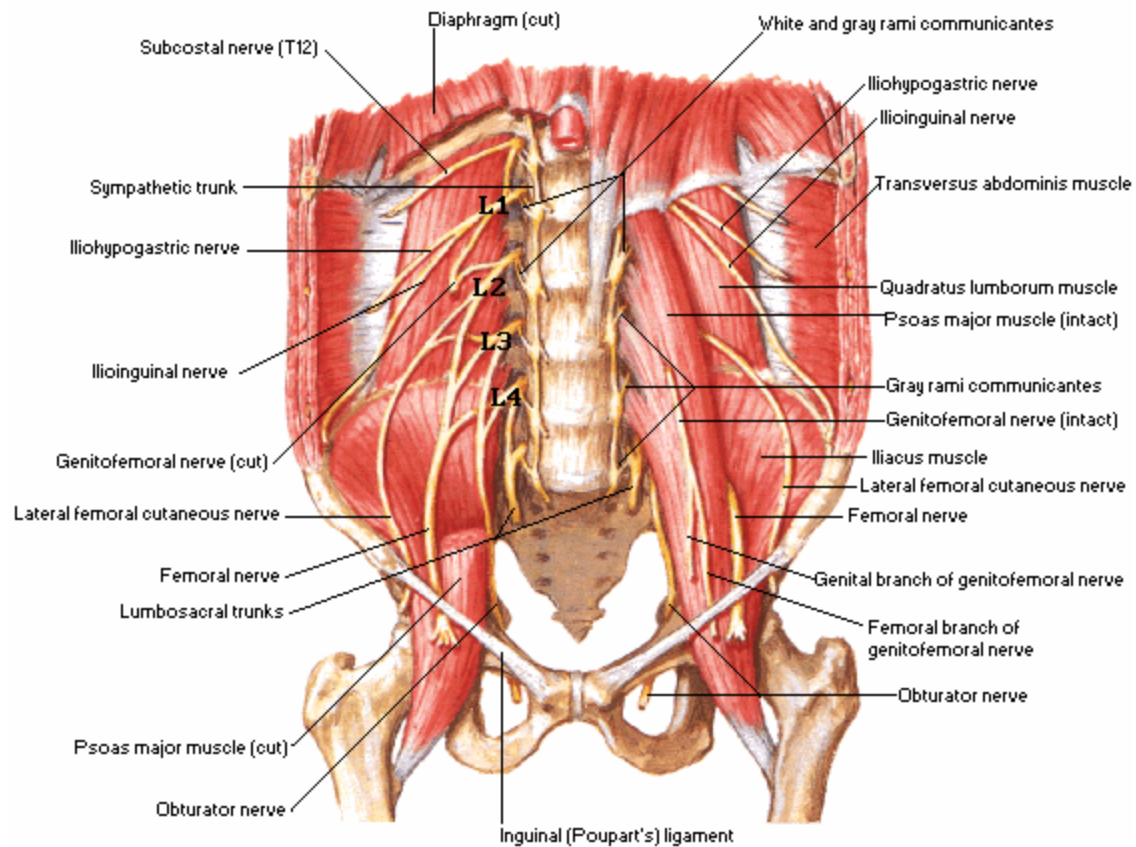


Note: arrows indicate direction of action of iliopsoas muscle

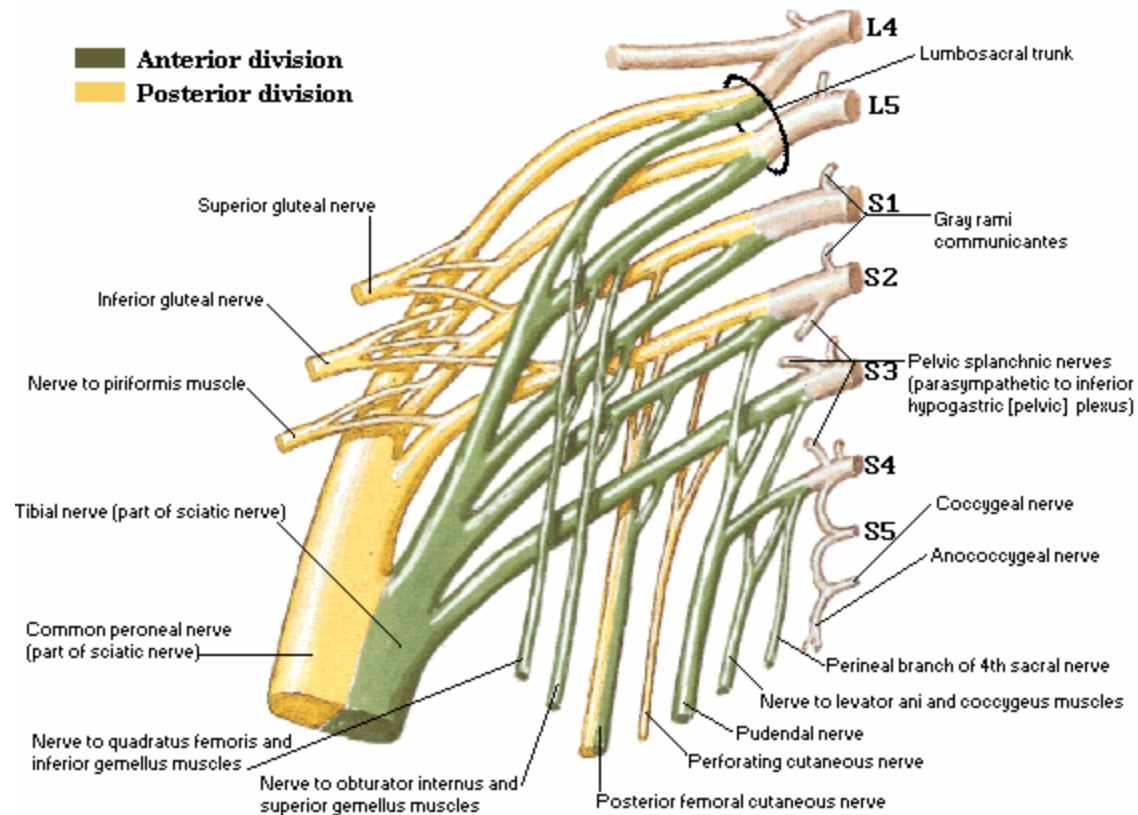


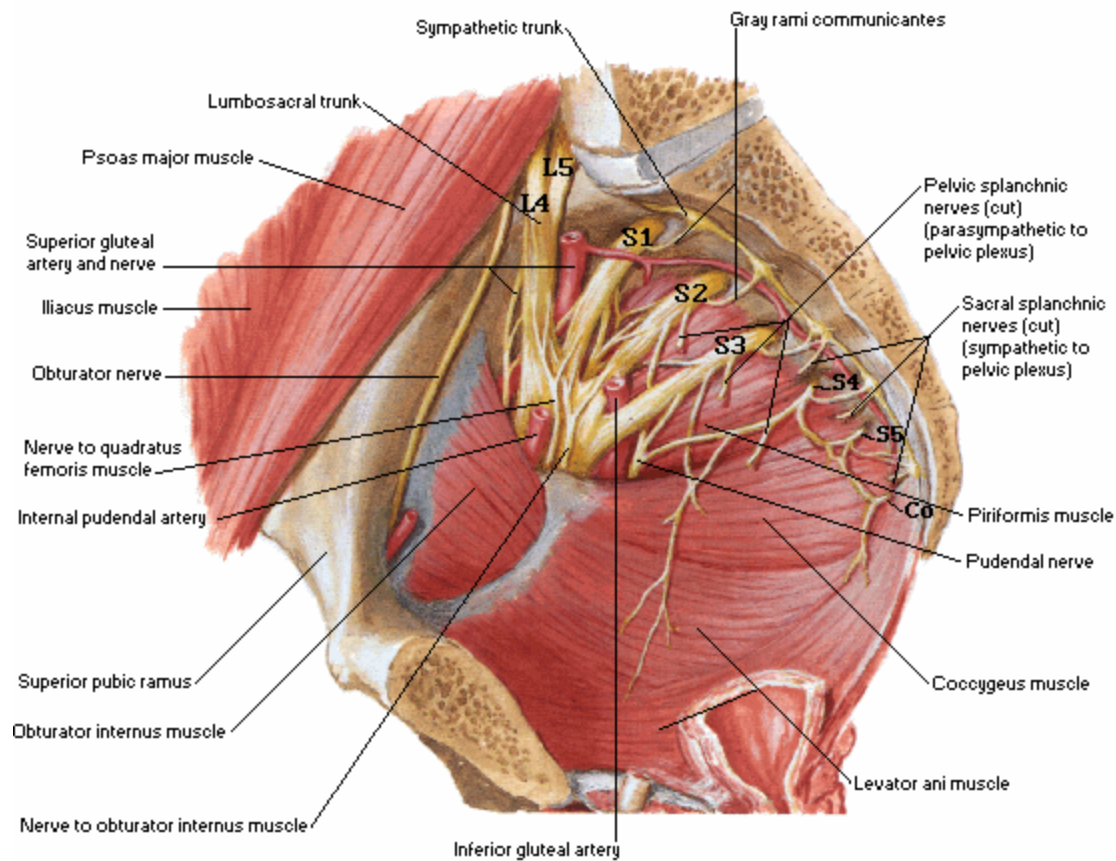
Schema



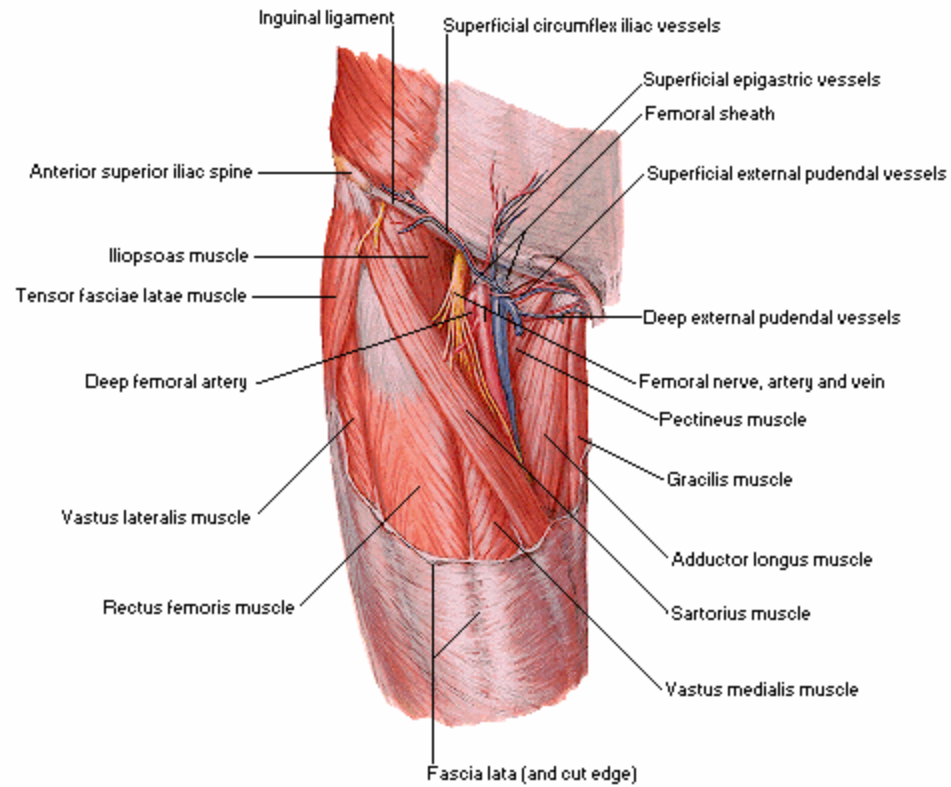


Schema

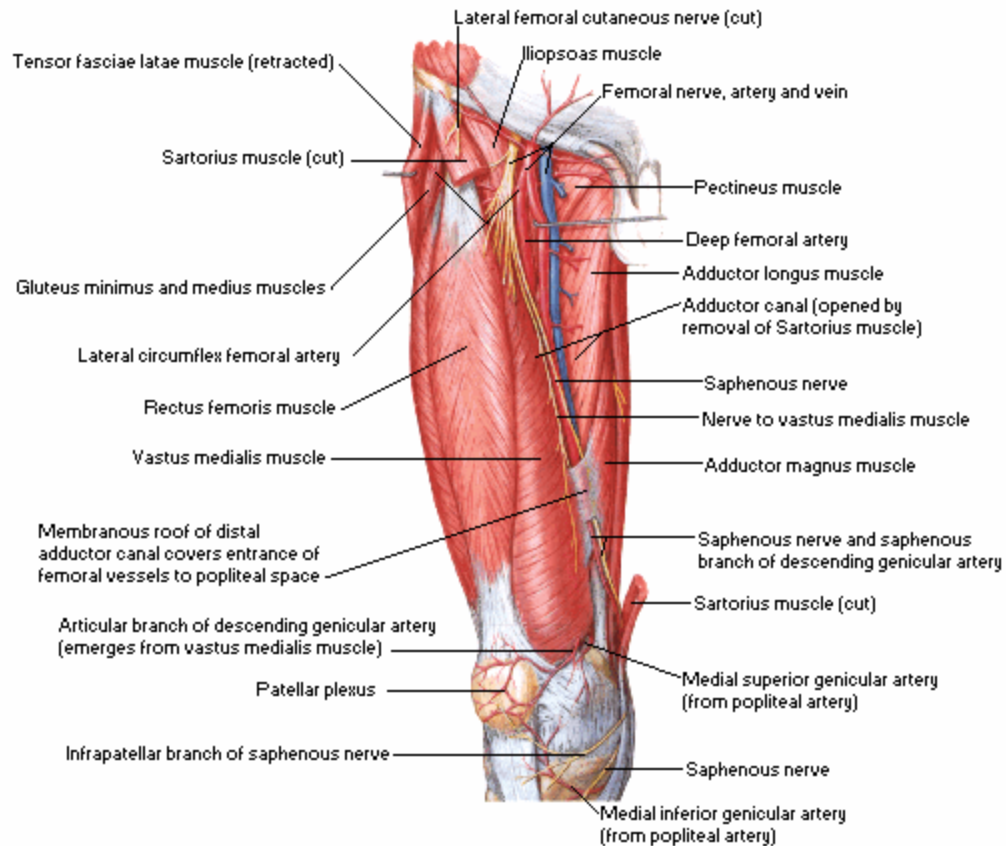




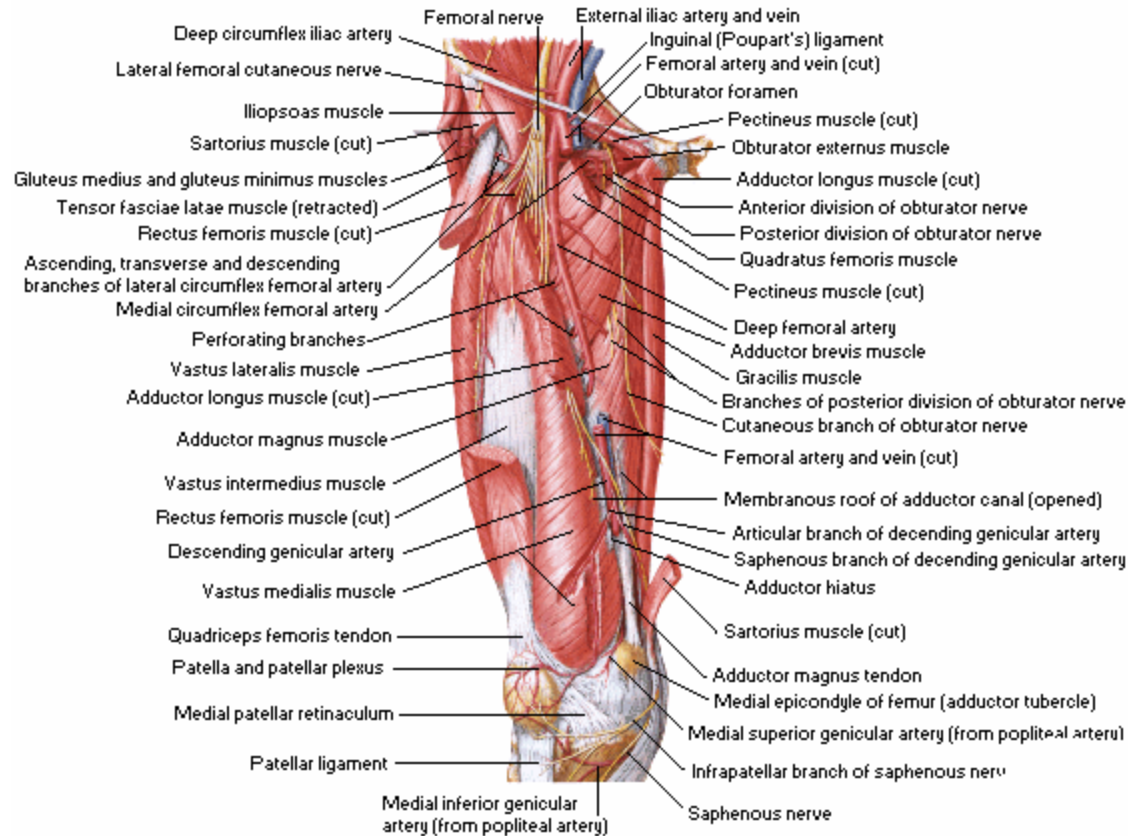
Superficial Anterior View



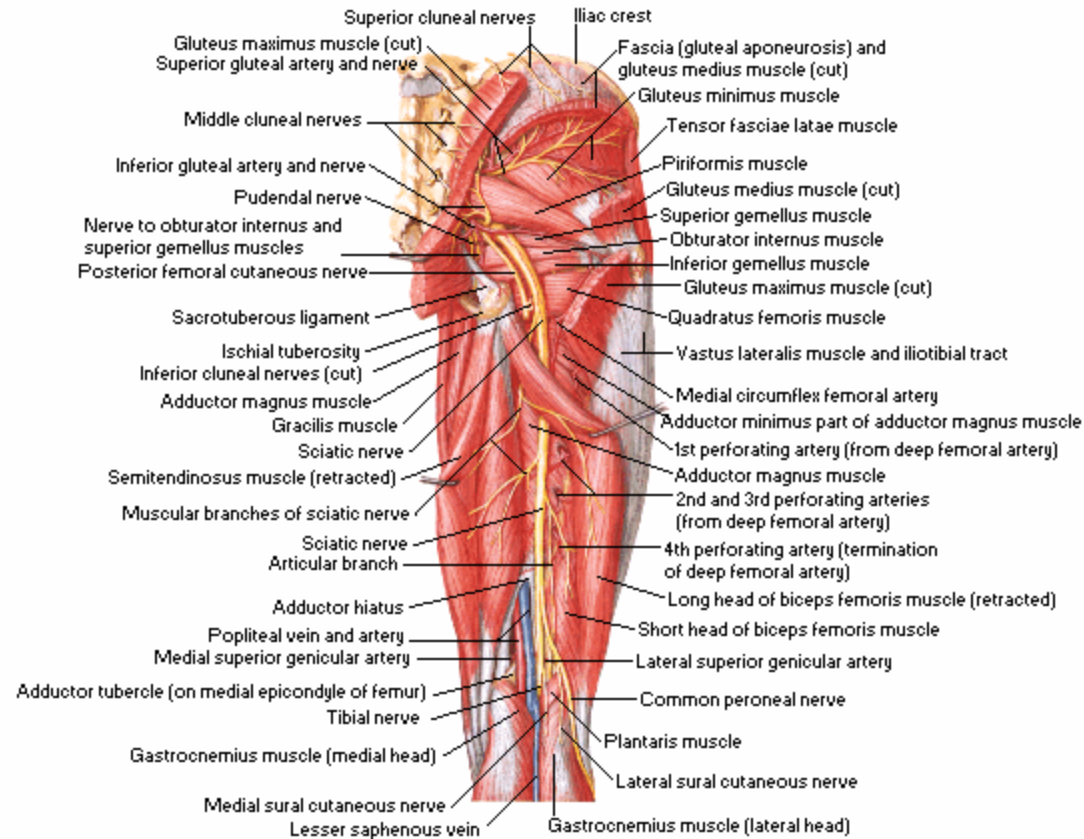
Deeper Anterior View

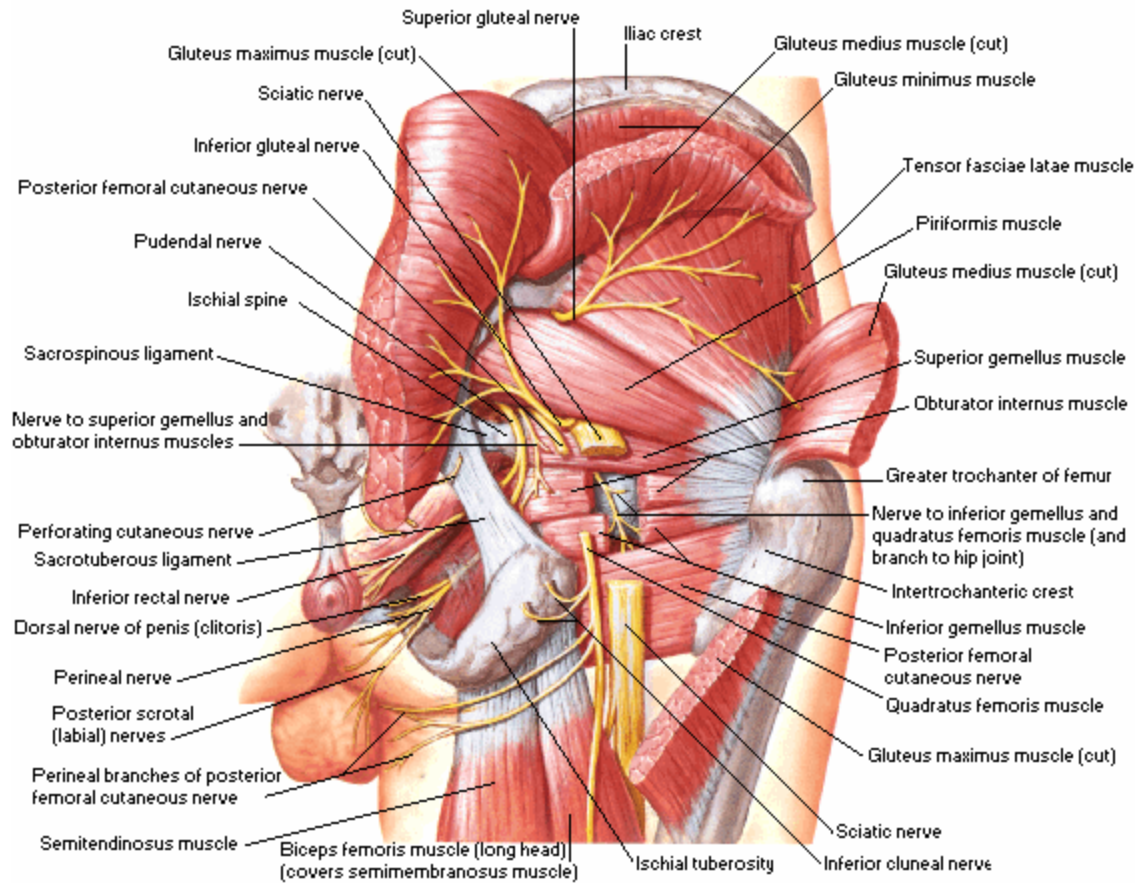


Deepest Anterior View

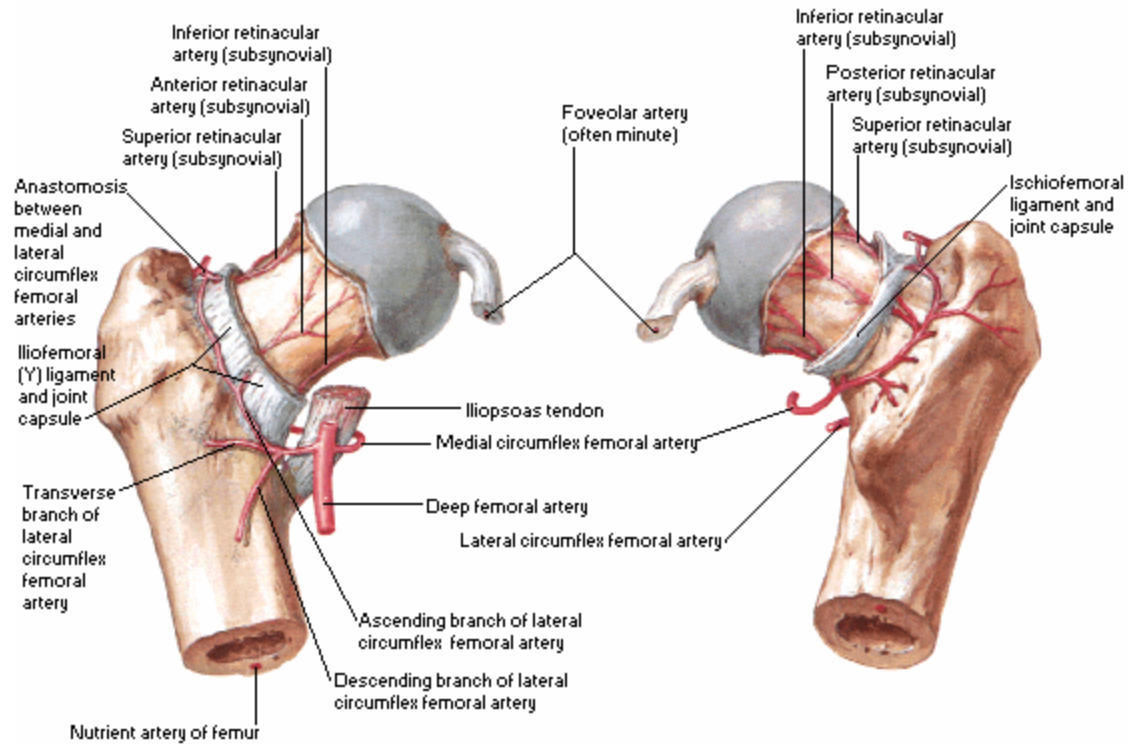


Posterior View

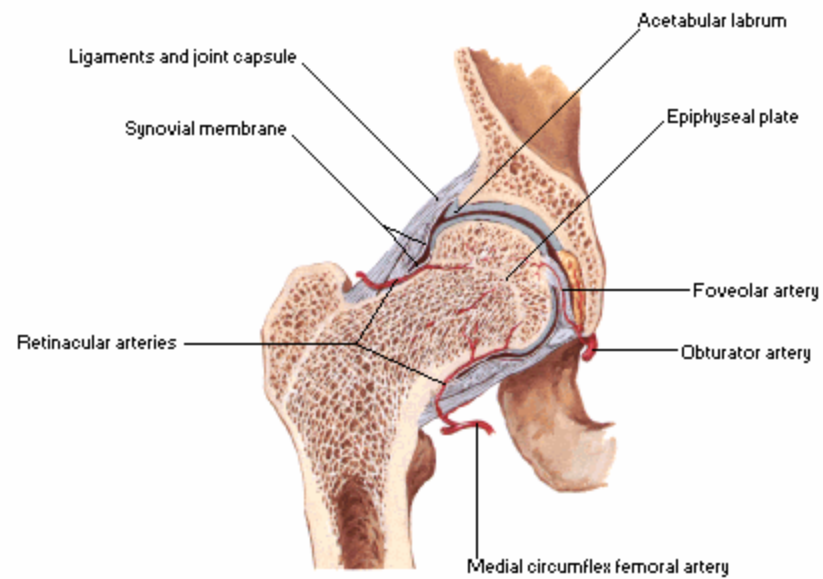




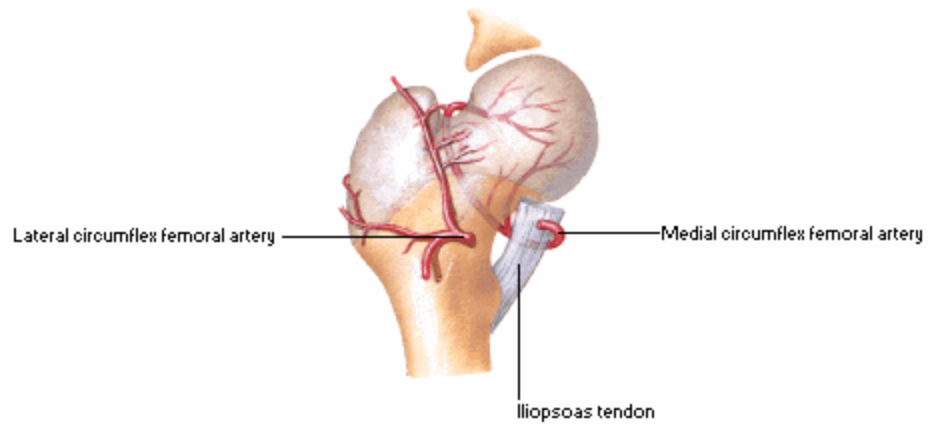
Anterior and Posterior Views



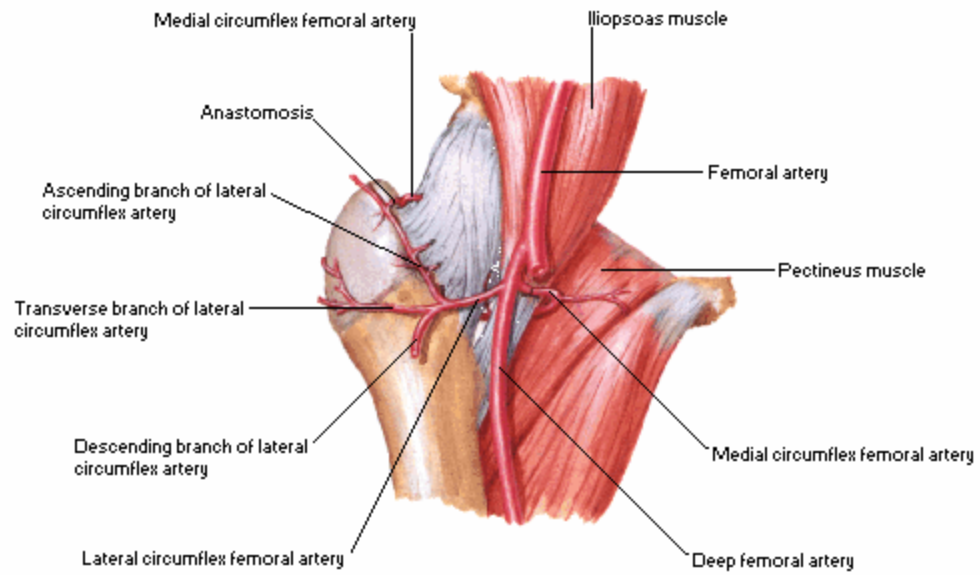
Coronal Section

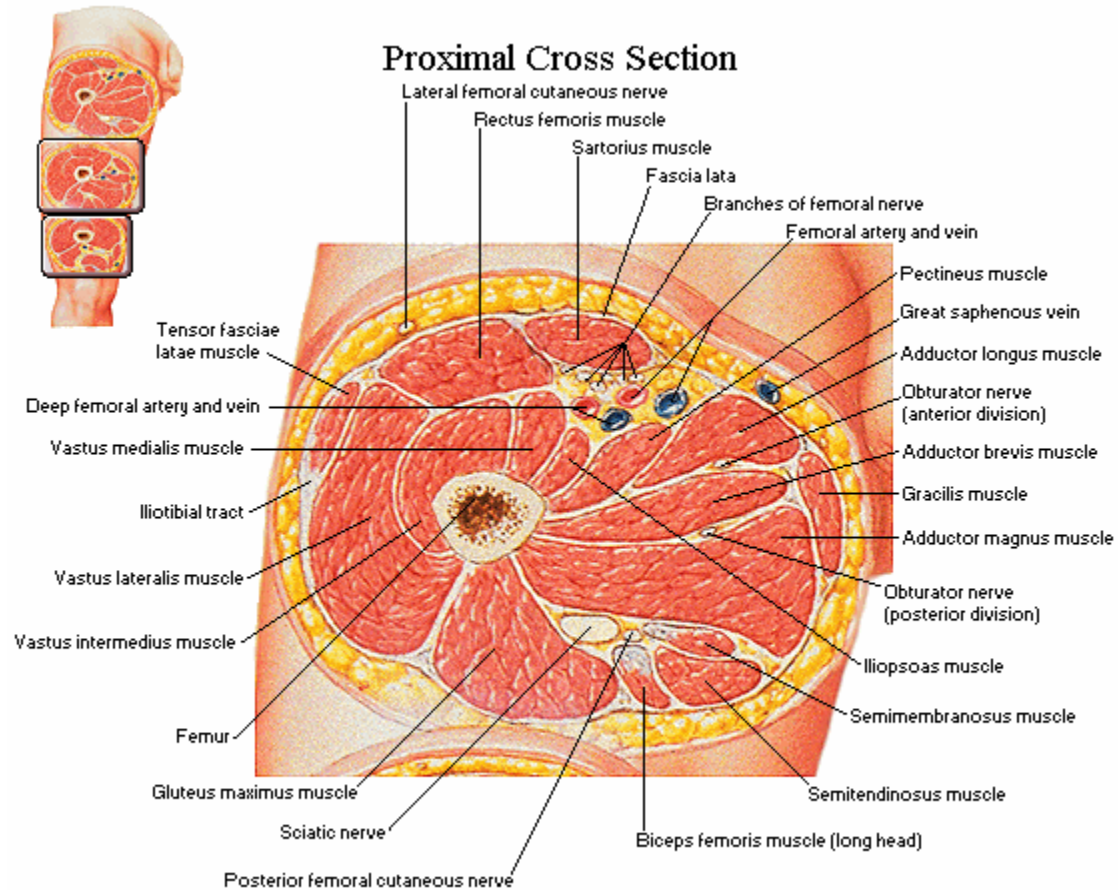


Femur of Child - Anterior View



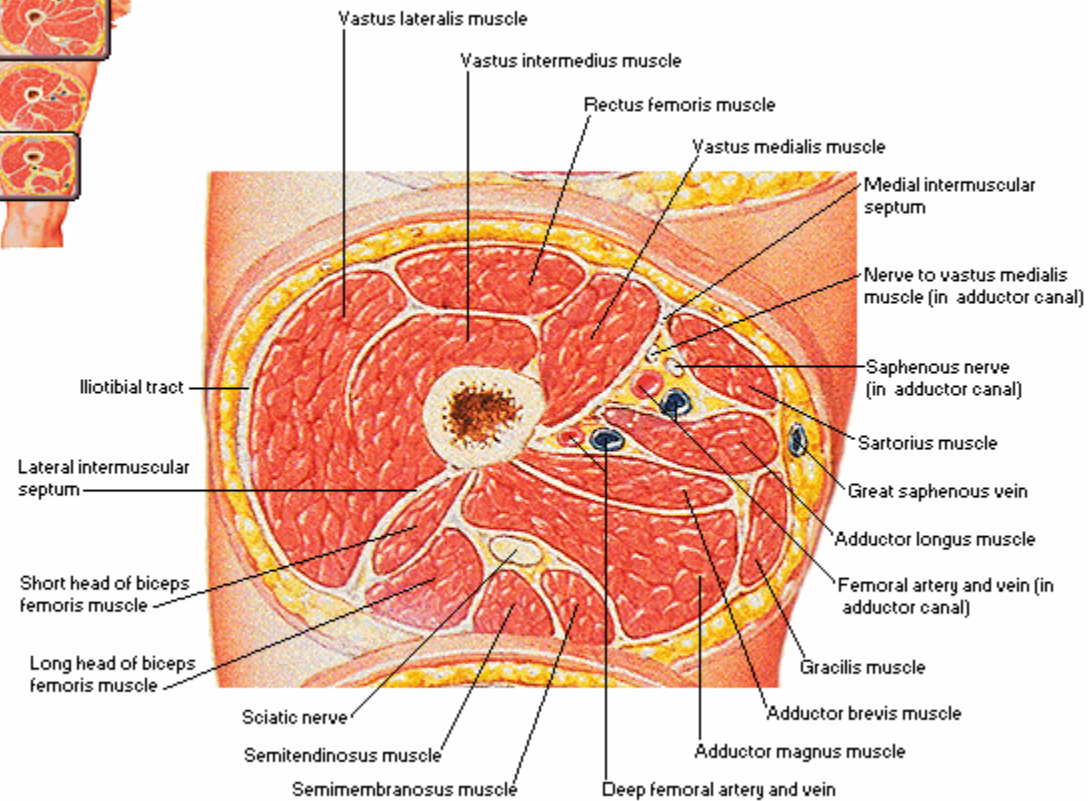
Anterior View in Situ





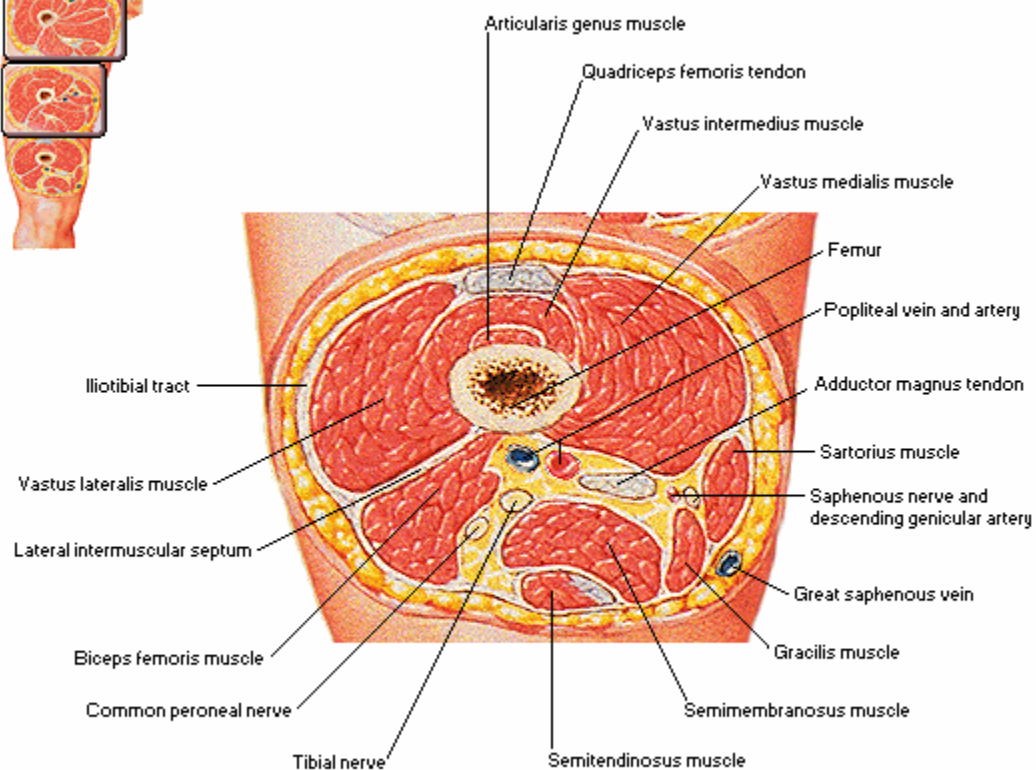


Middle Cross Section

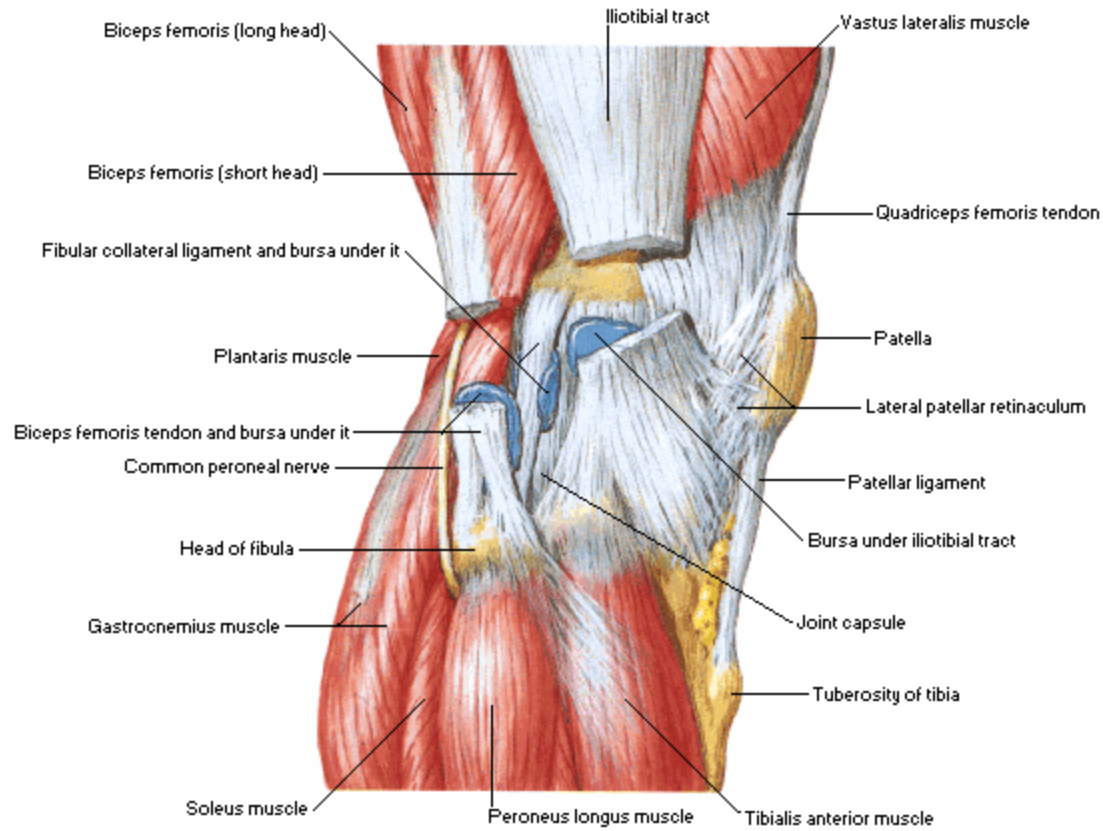




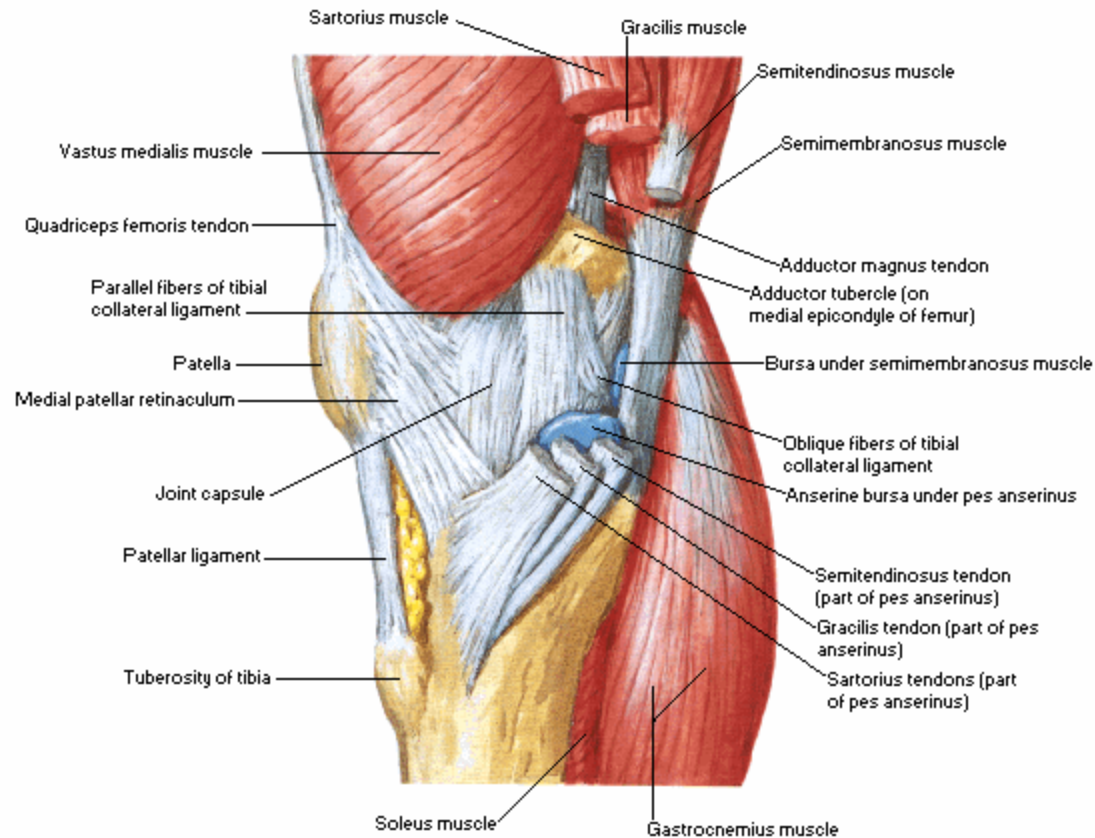
Distal Cross Section



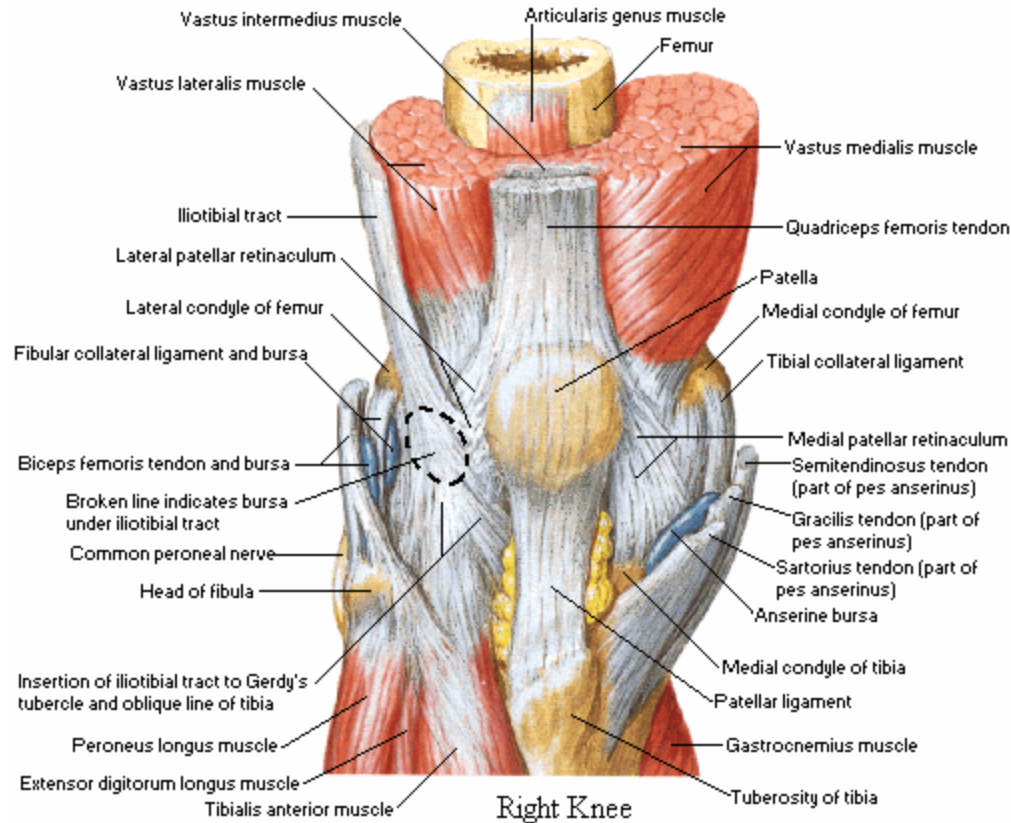
Lateral View



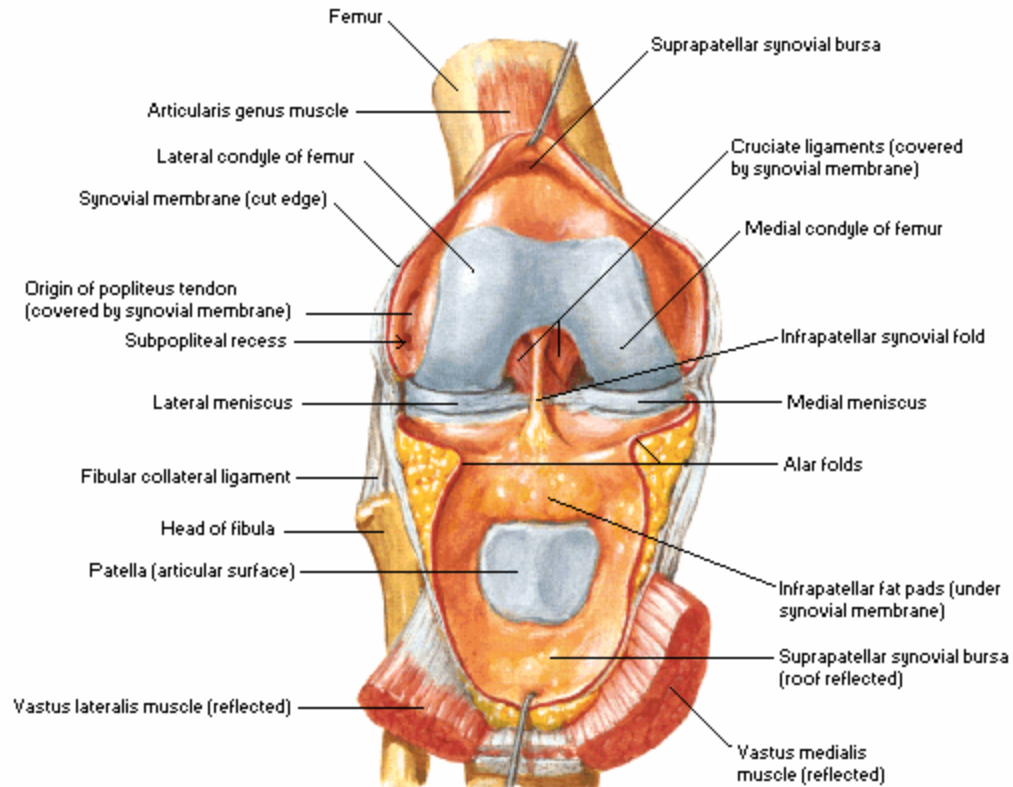
Medial View



Anterior View

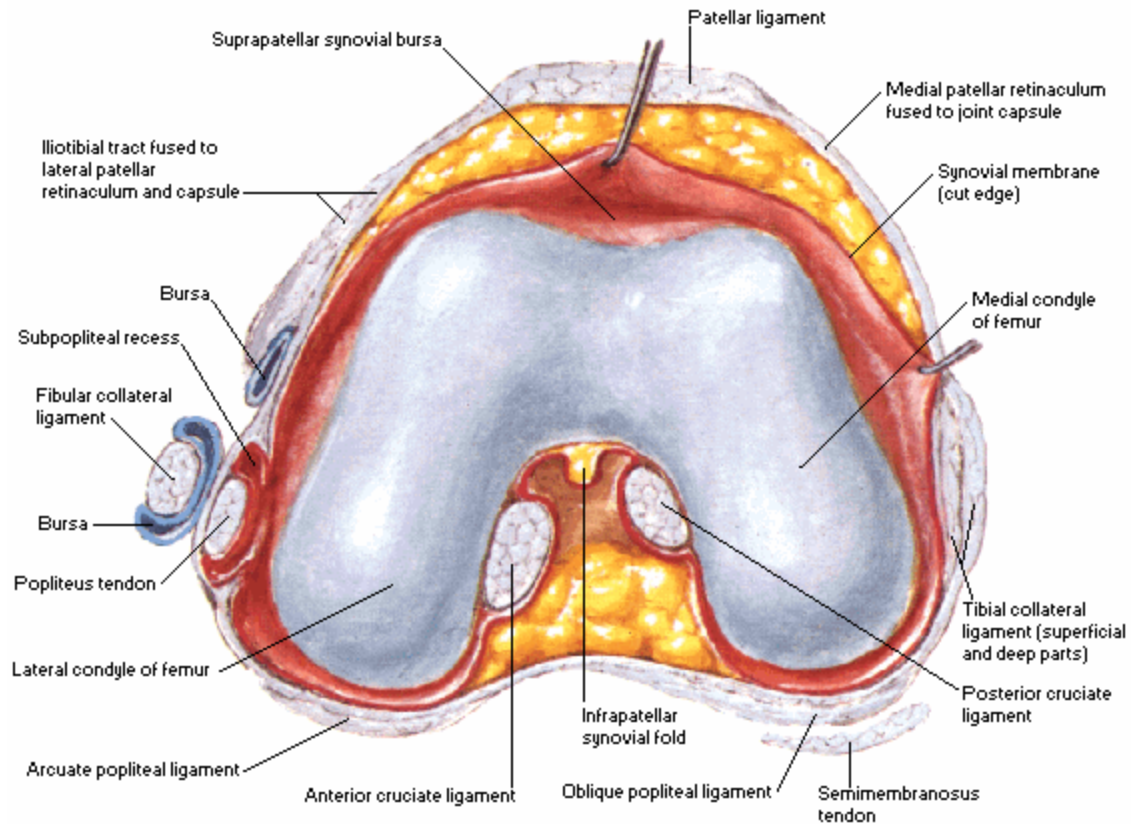


Right Knee Slightly in Flexion [Joint Opened]

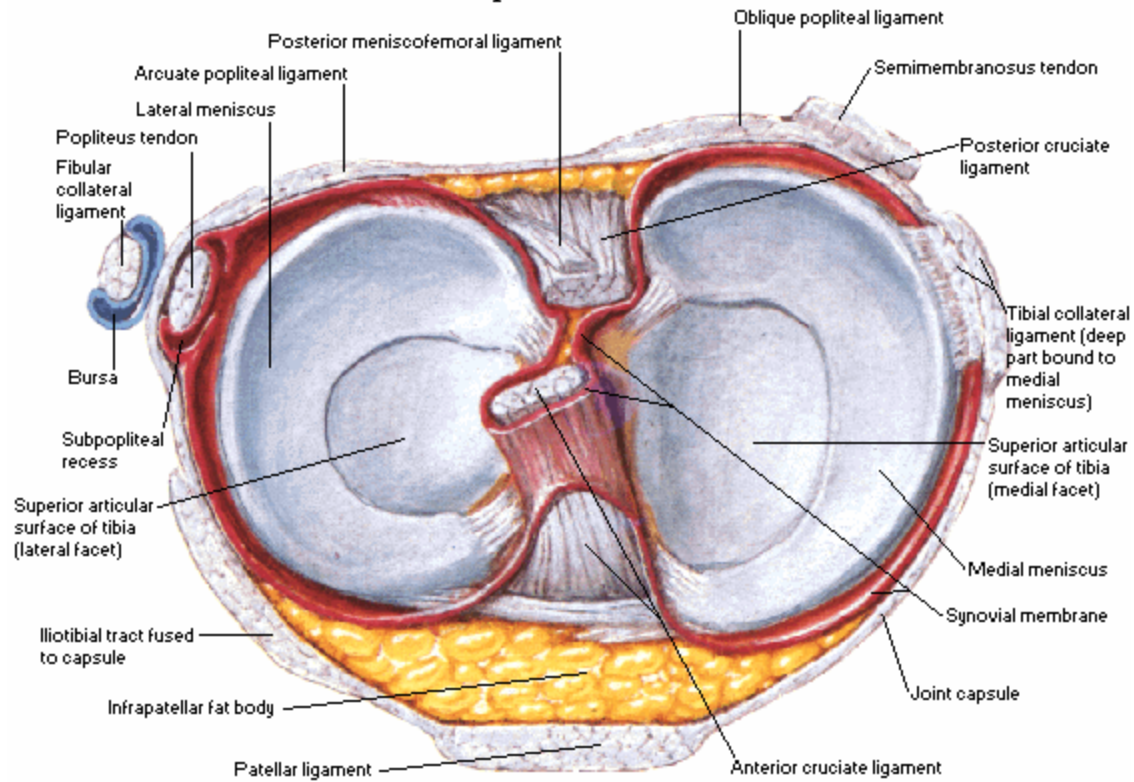


Anterior View

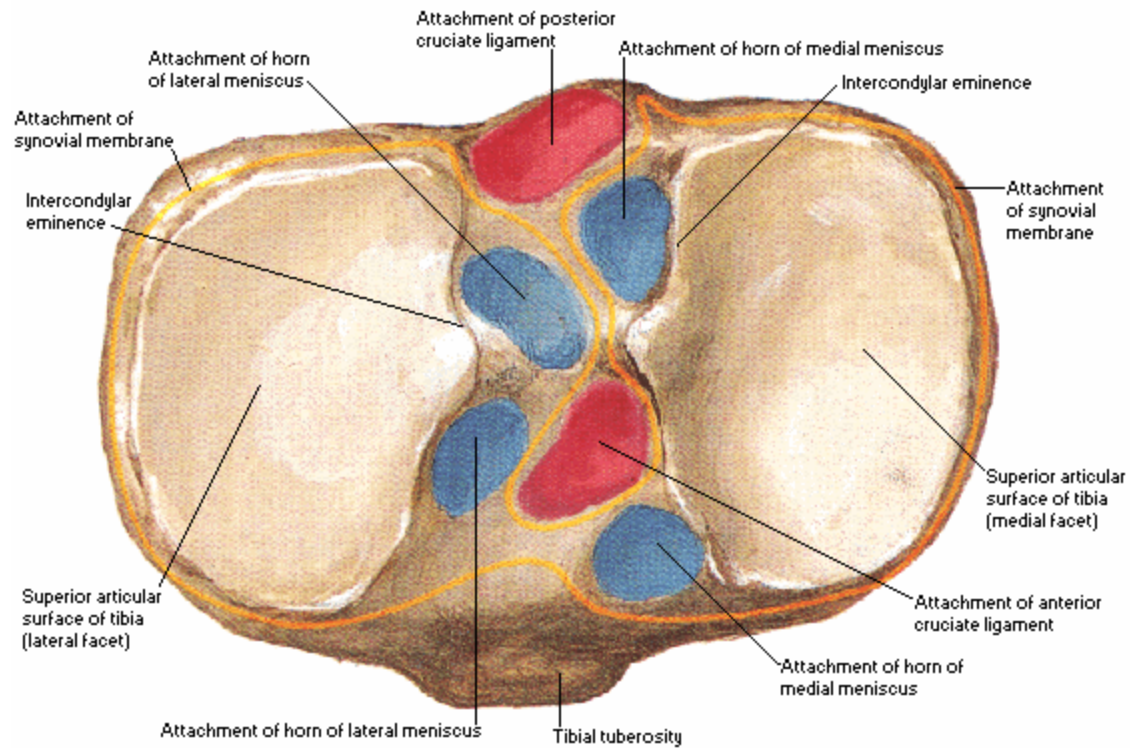
Inferior View



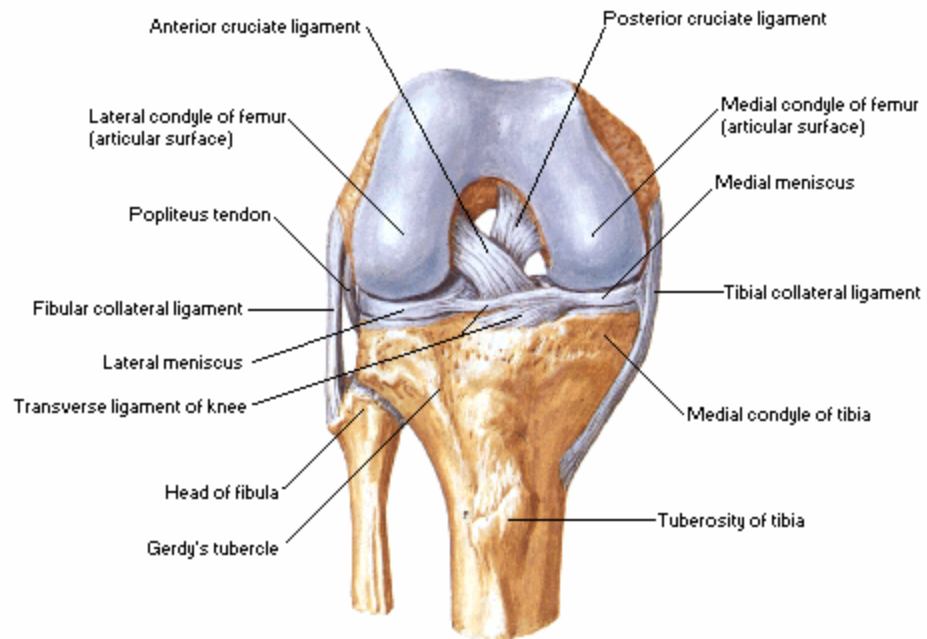
Superior View



Superior View, Ligaments and Cartilage Removed

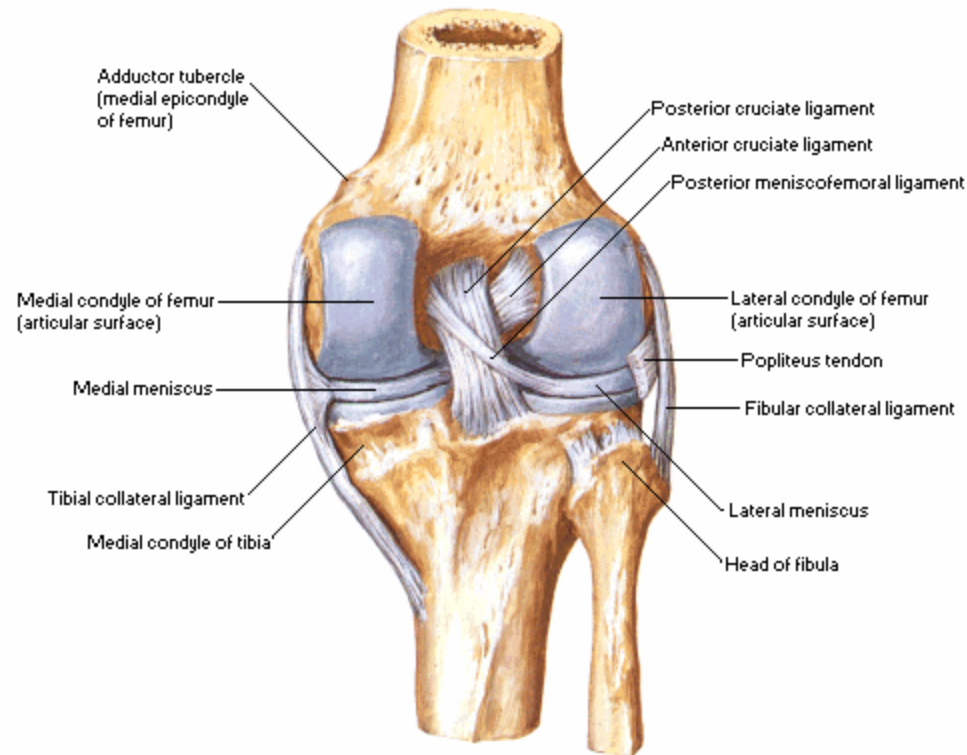


Right Knee in Flexion



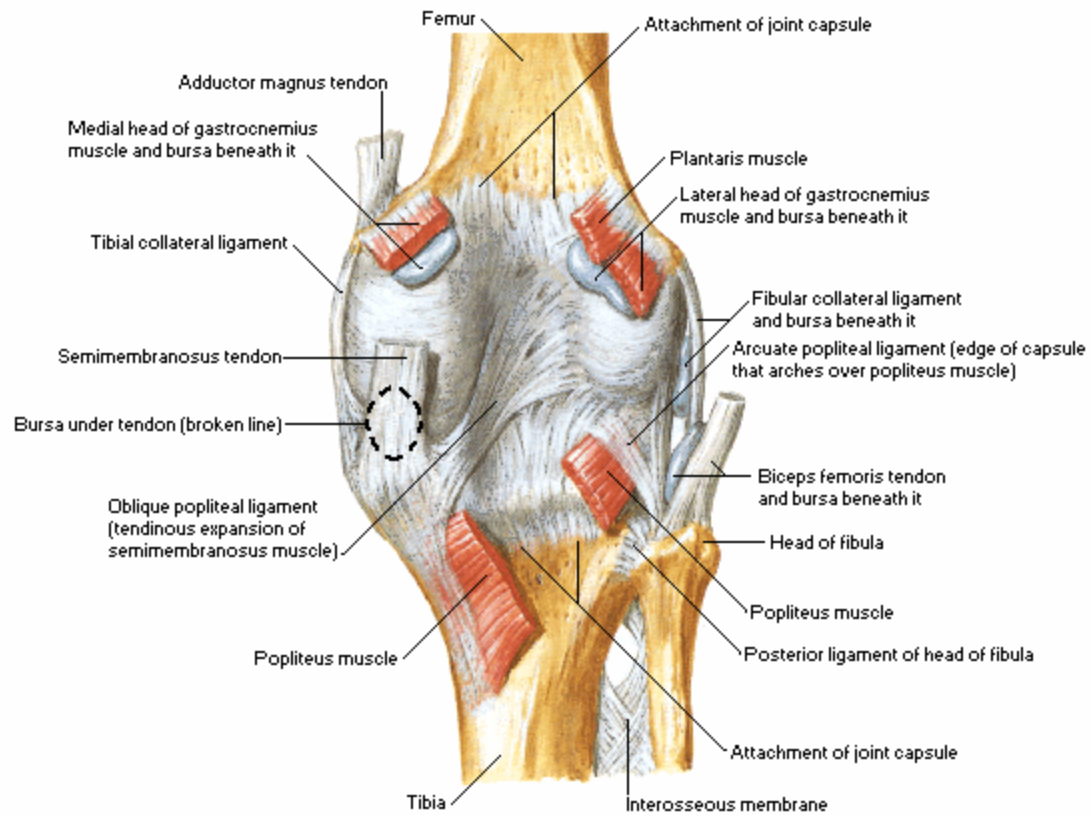
Anterior View

Right Knee in Extension

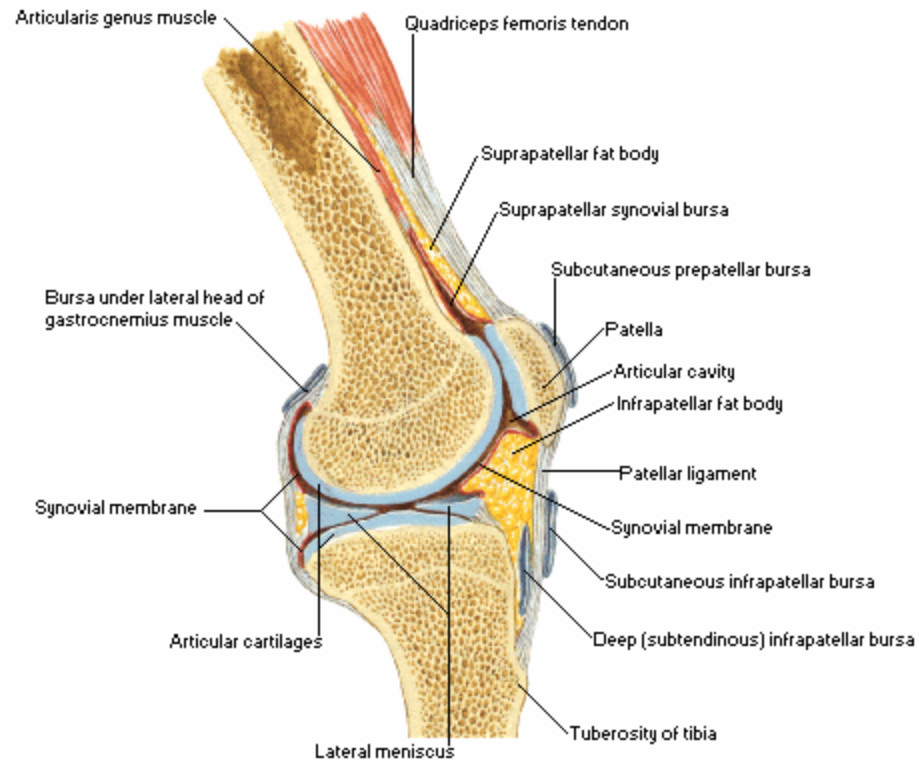


Posterior View

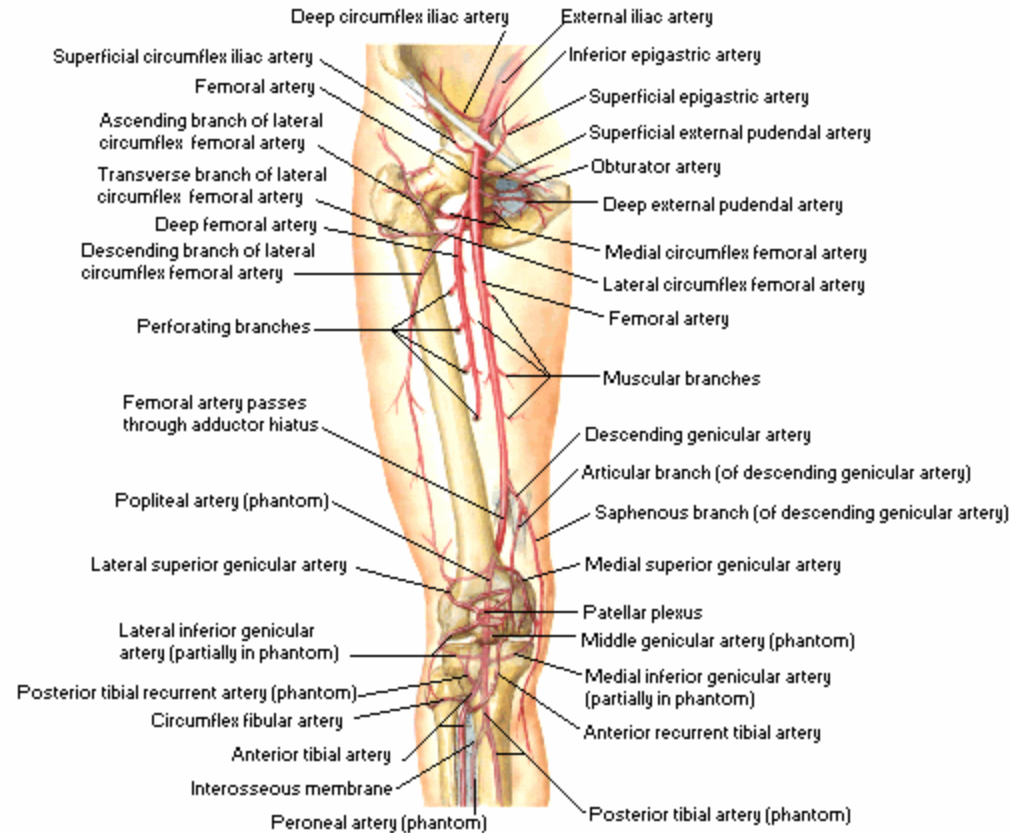
Posterior View



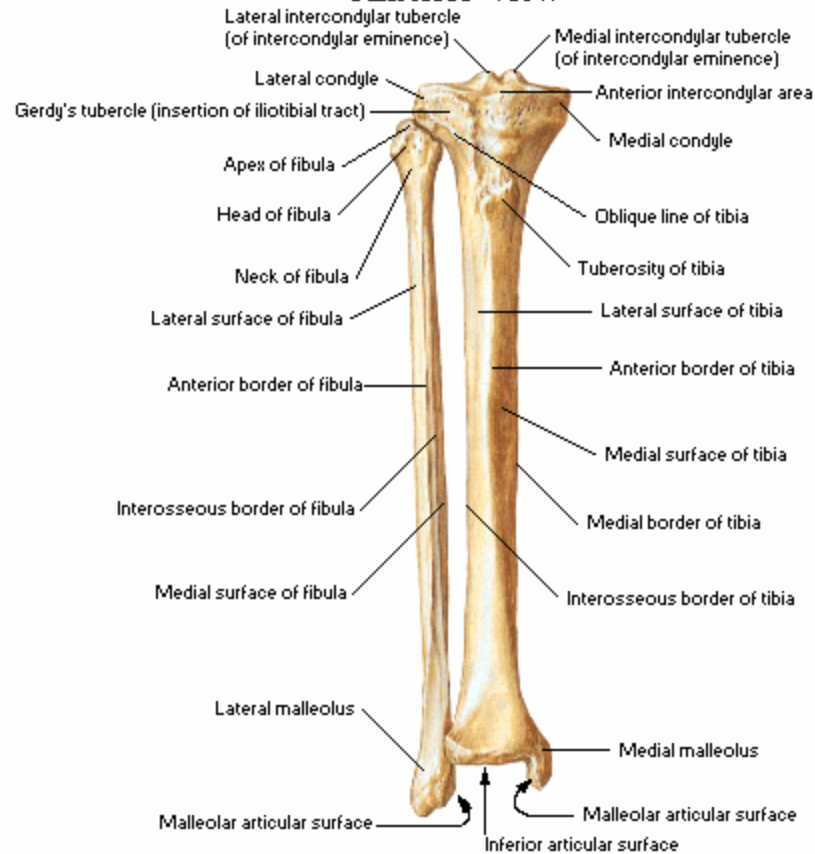
Parasagittal Section - Lateral to Midline



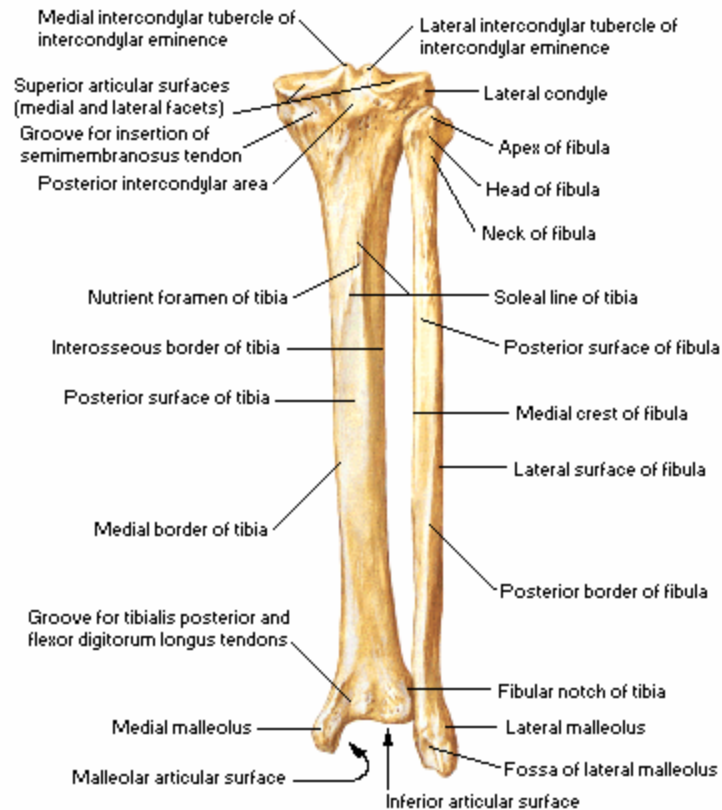
Schema



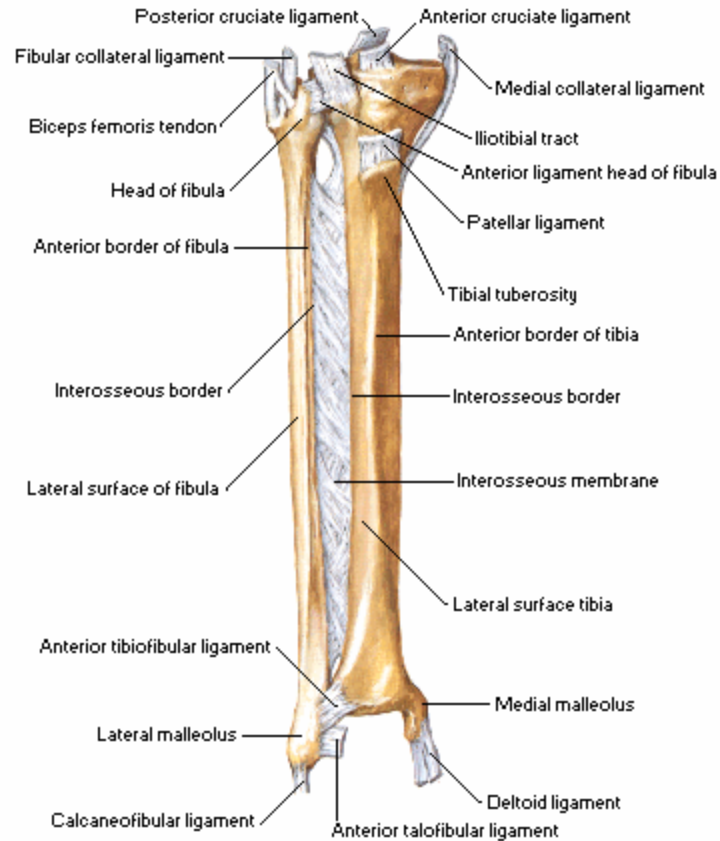
Anterior View



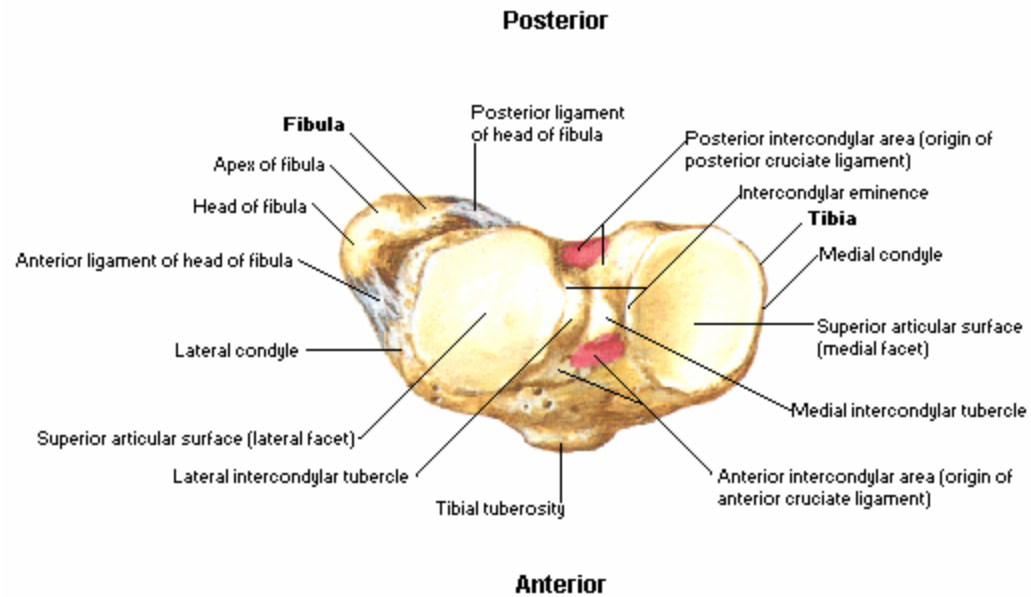
Posterior View



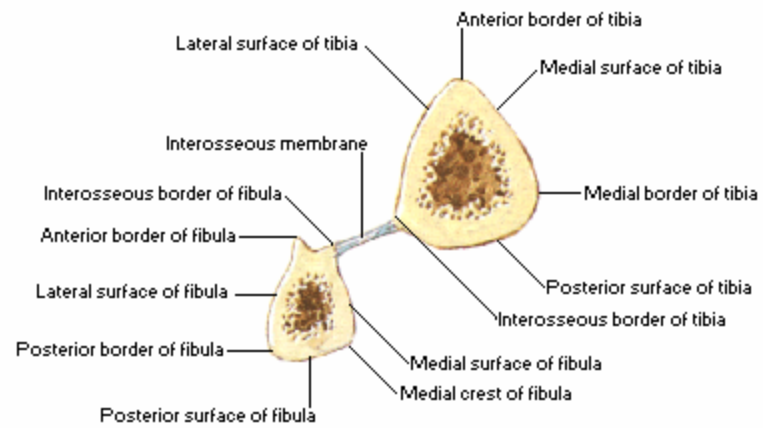
Anterior View - Ligament Attachments



Superior View

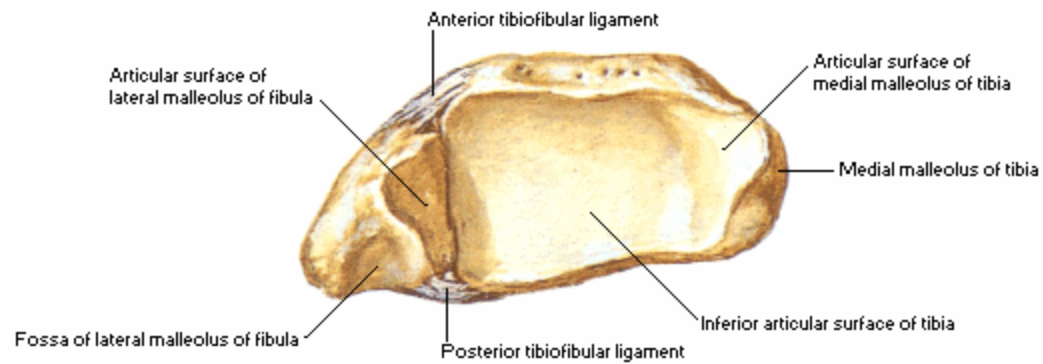


Cross Section



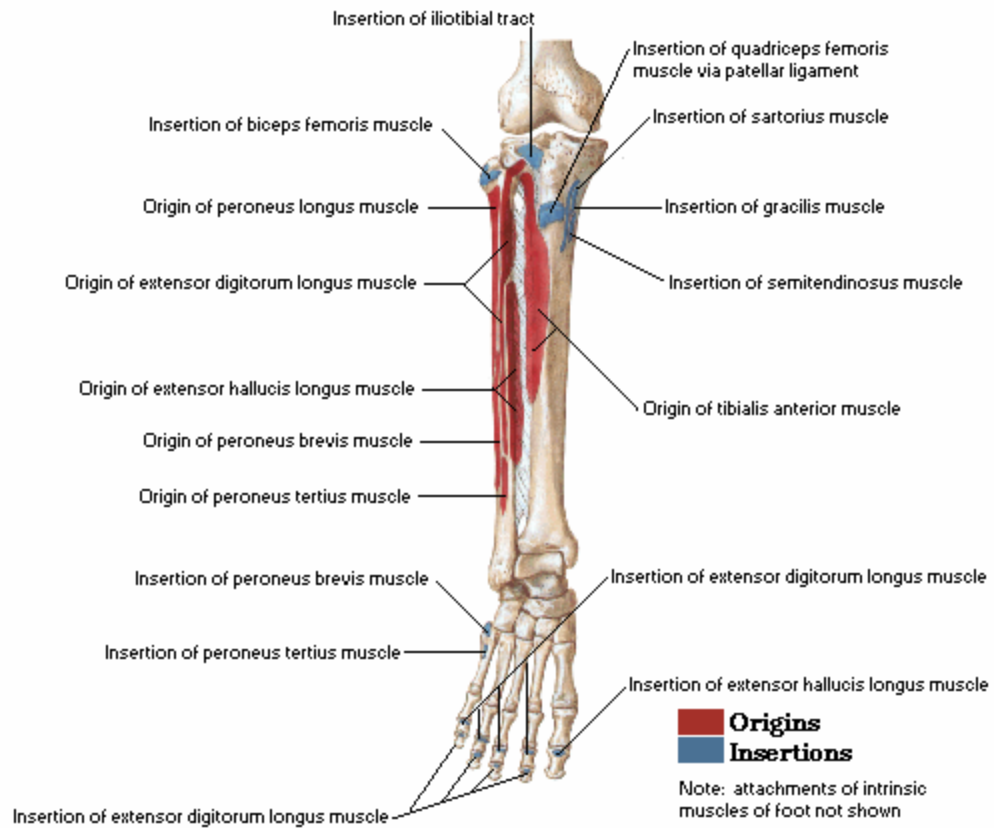
Inferior View

Anterior

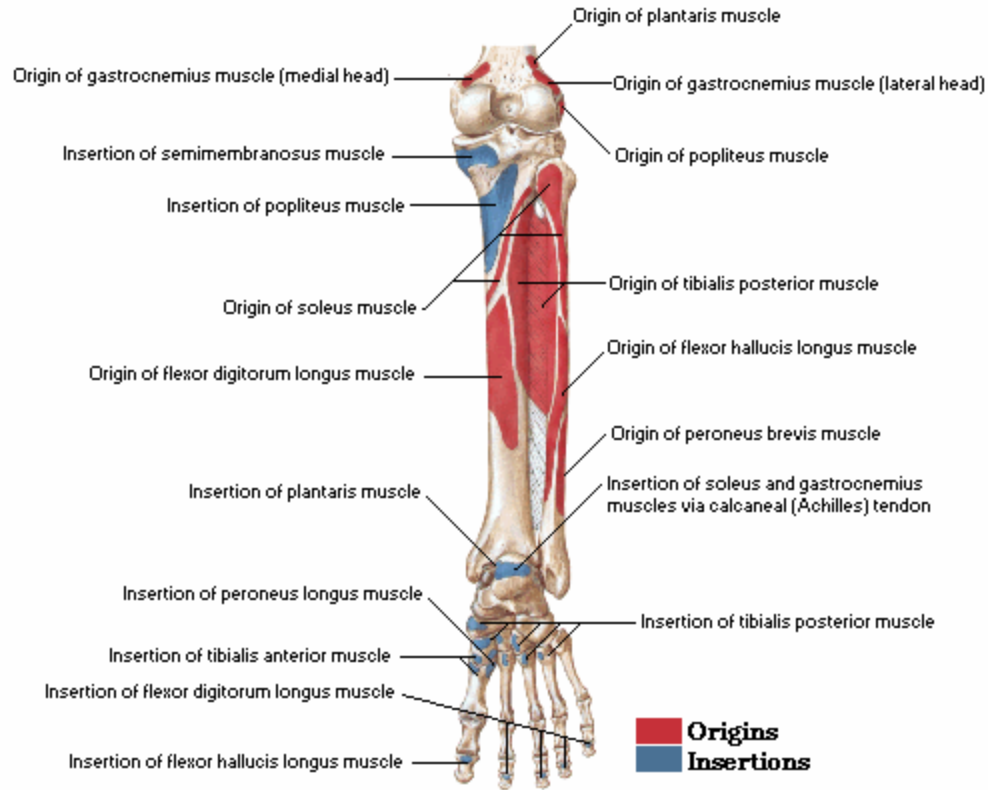


Posterior

Anterior View

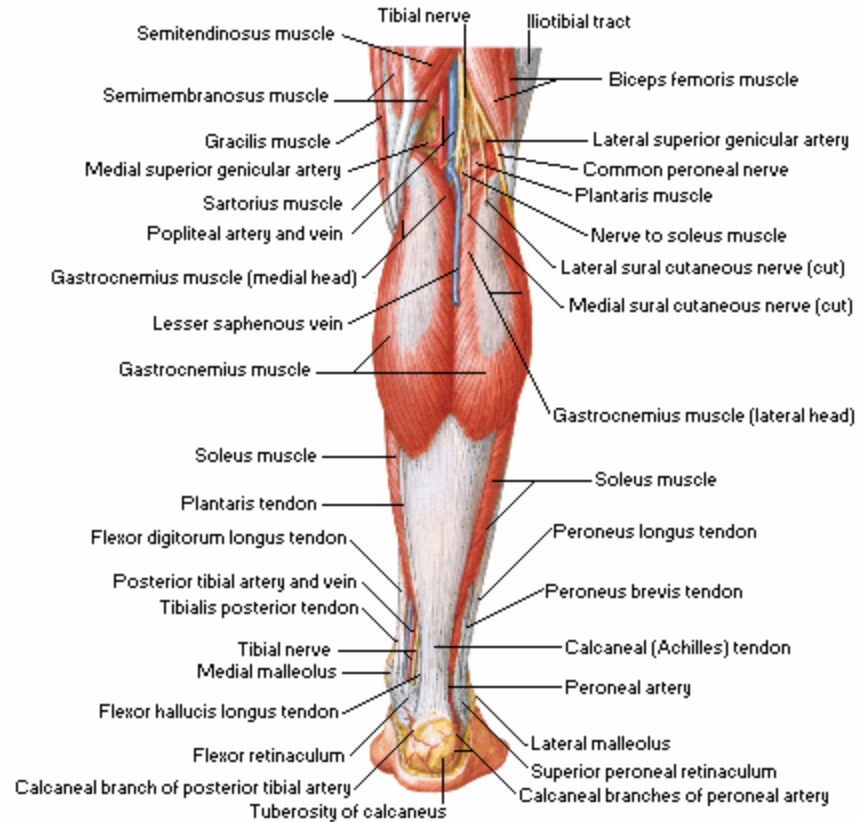


Posterior View

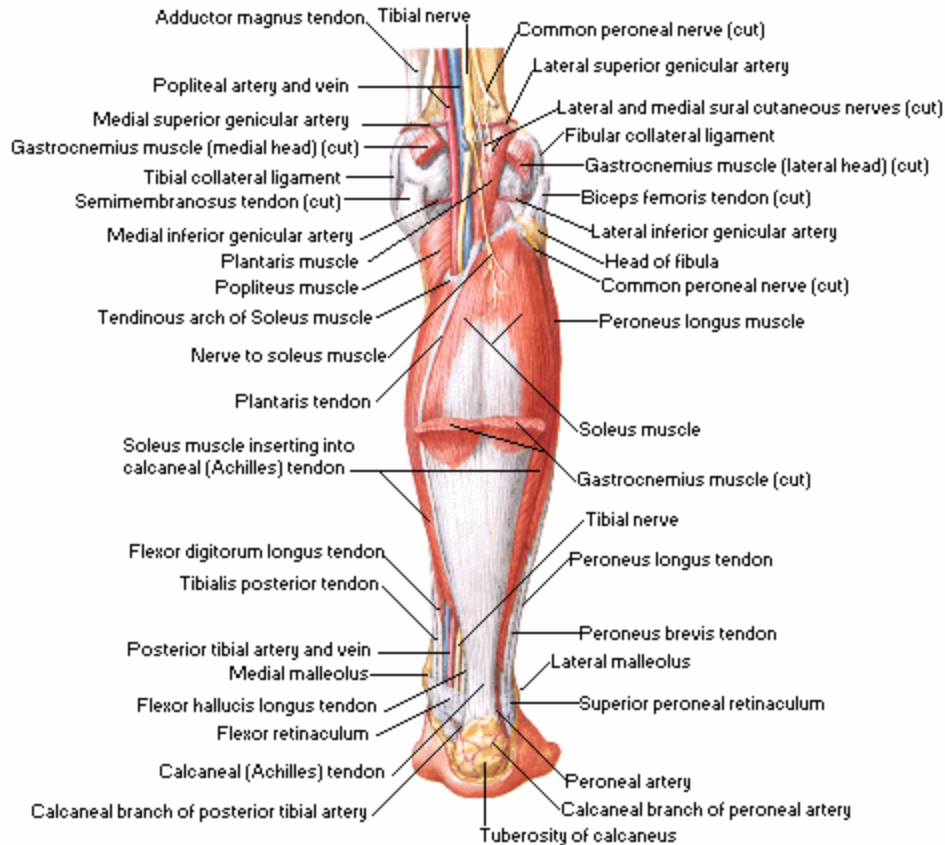


Note: attachments of intrinsic muscles of foot not shown

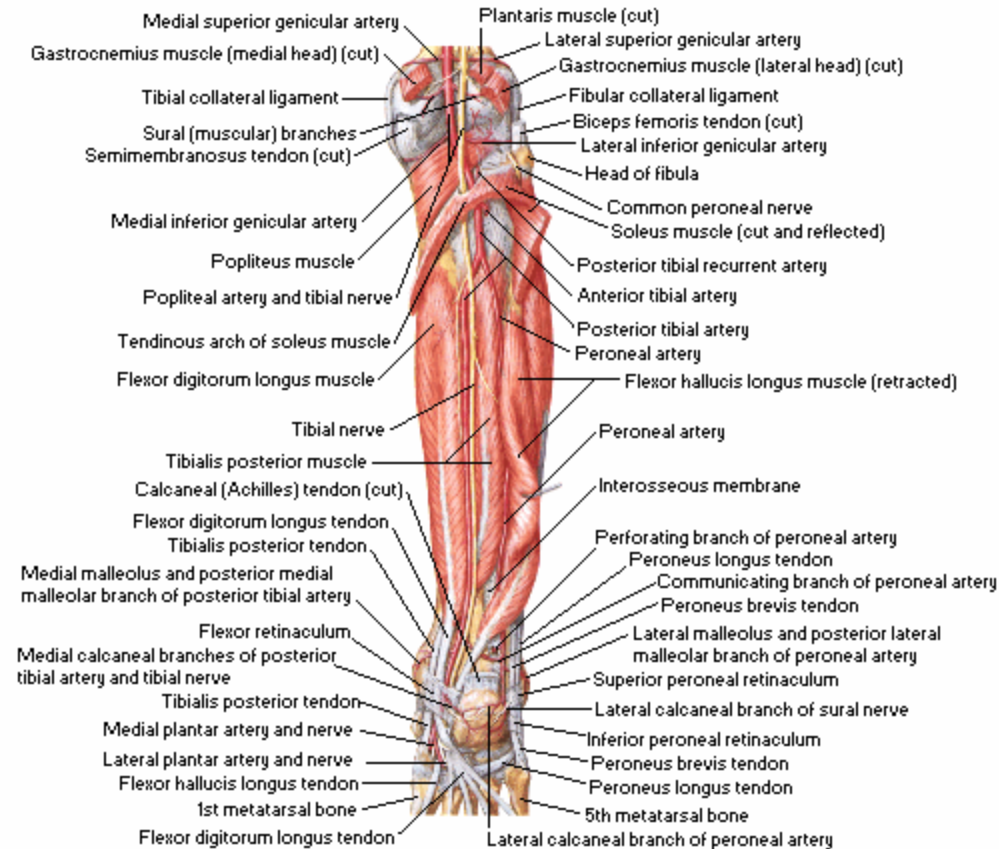
Posterior View



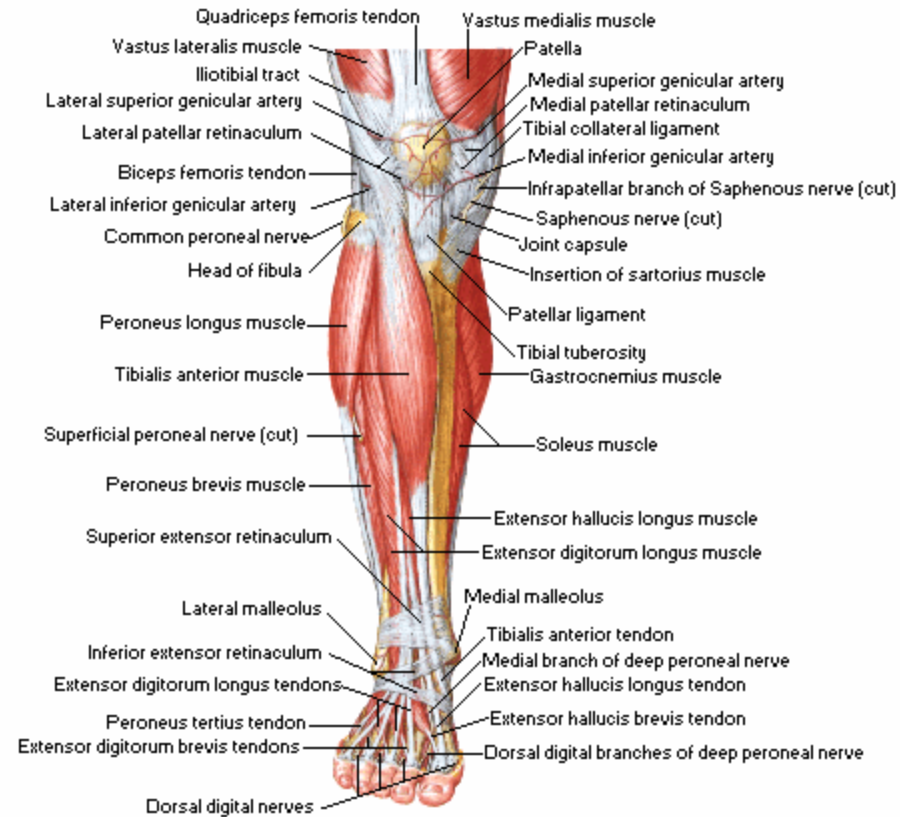
Posterior View



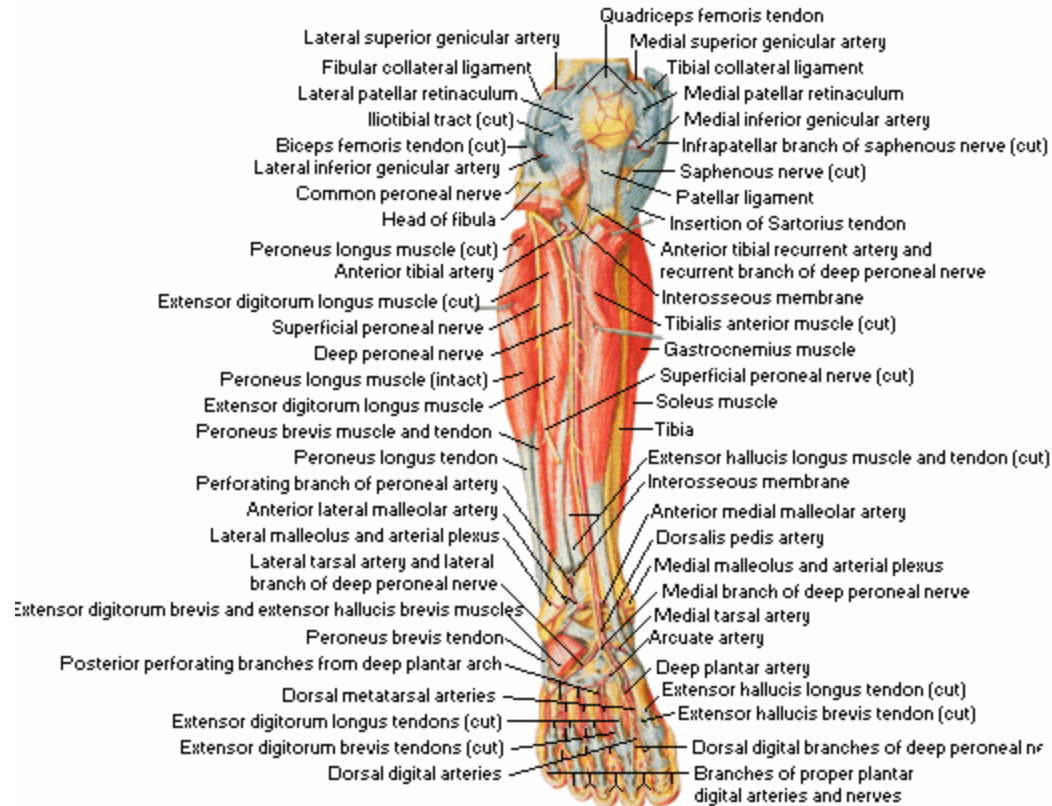
Posterior View



Anterior View



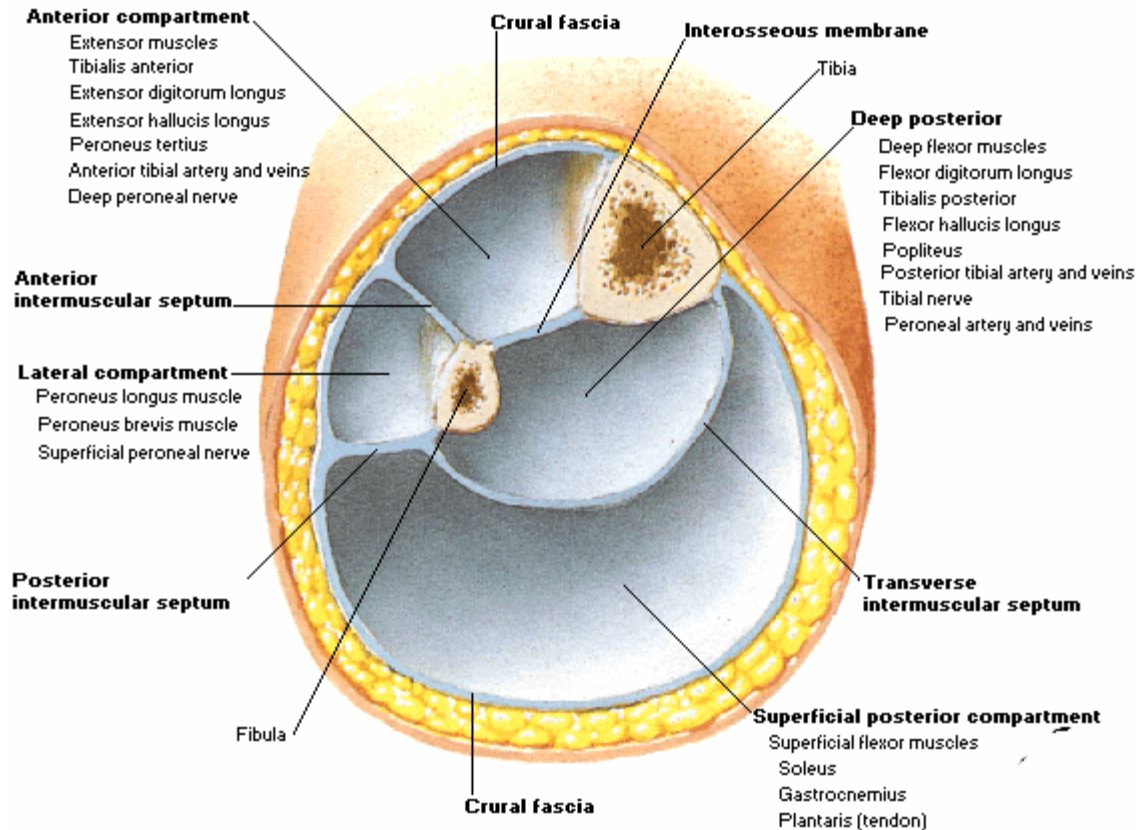
Anterior View



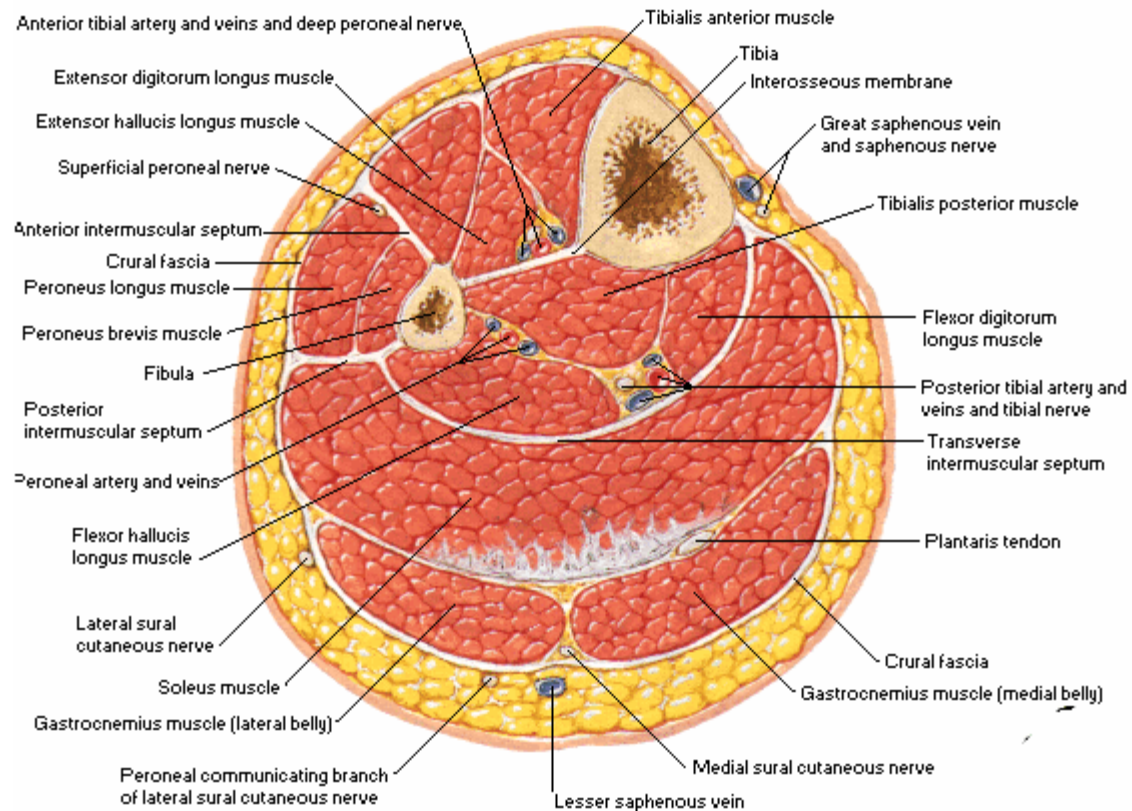
Lateral View



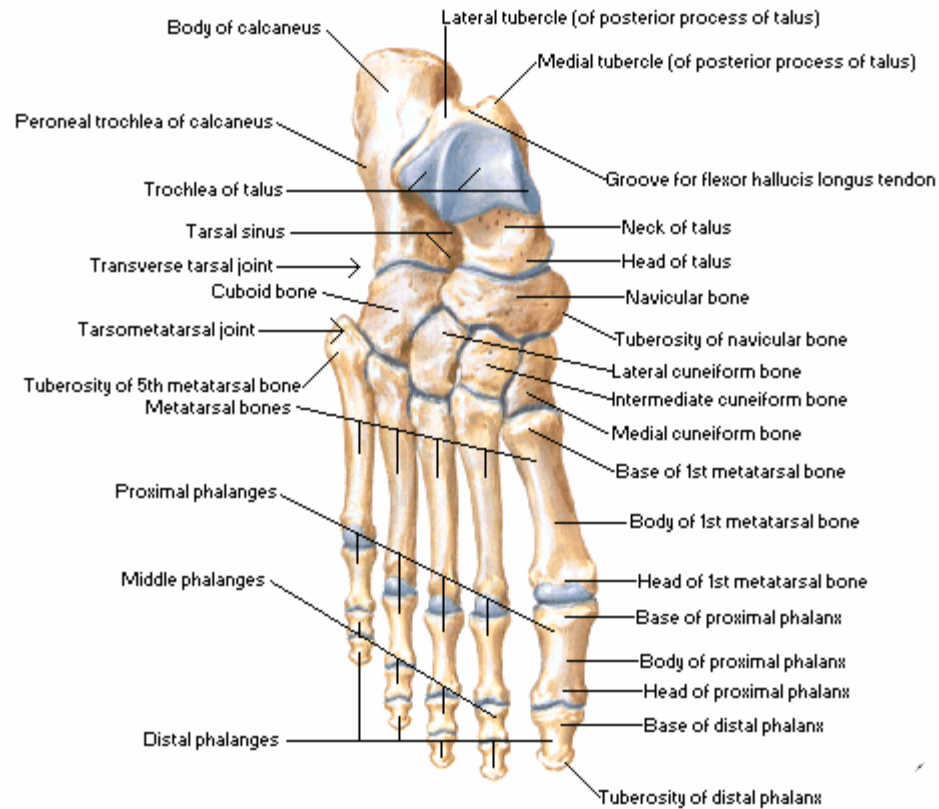
Cross Section - Fascial Compartments



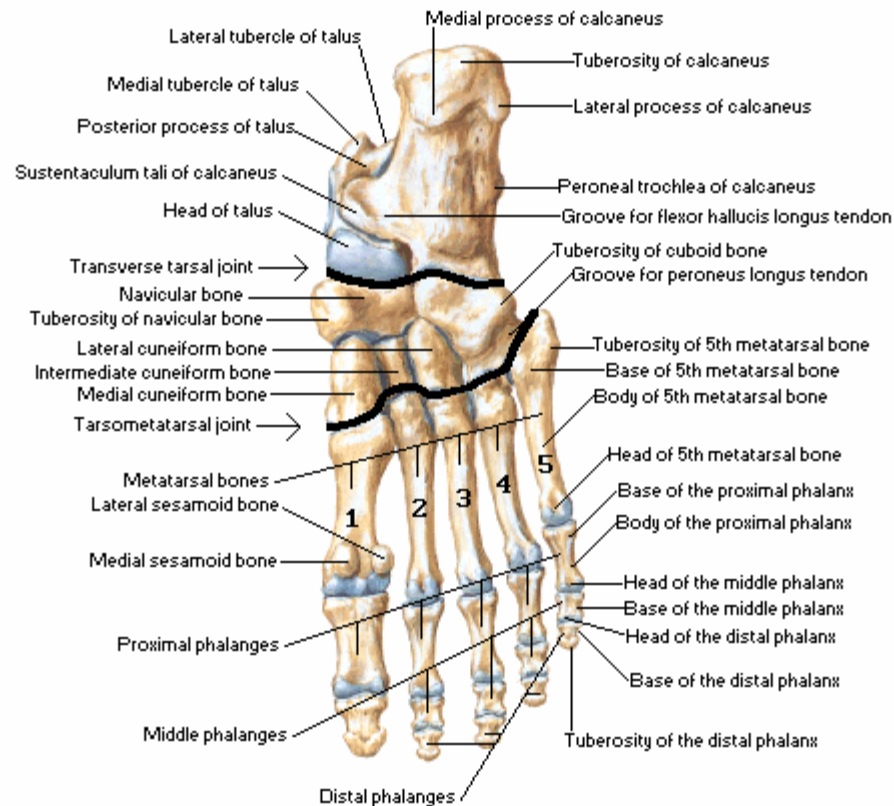
Cross Section just above Middle of Left Leg



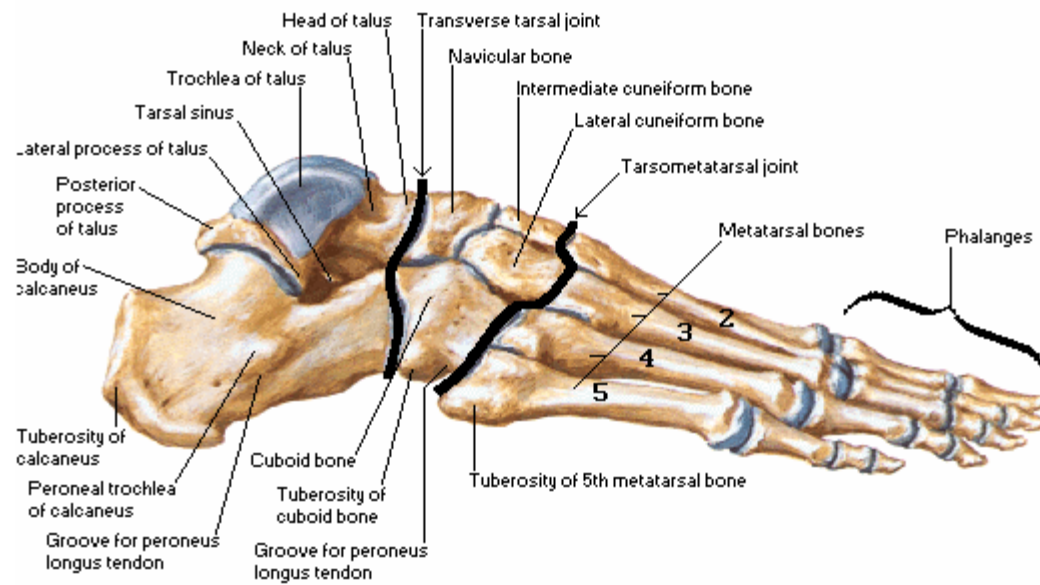
Dorsal View



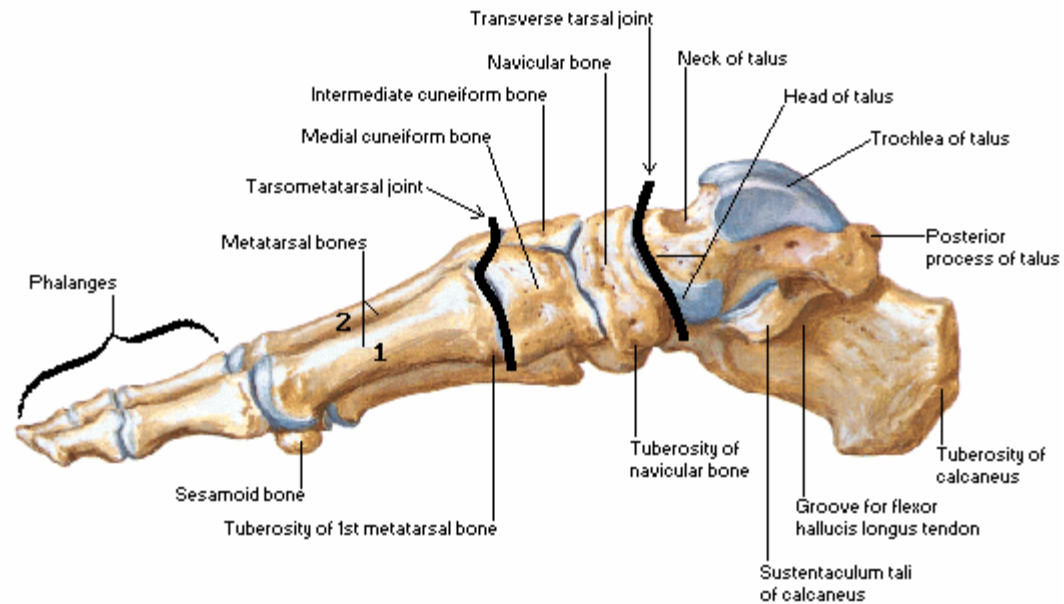
Plantar View



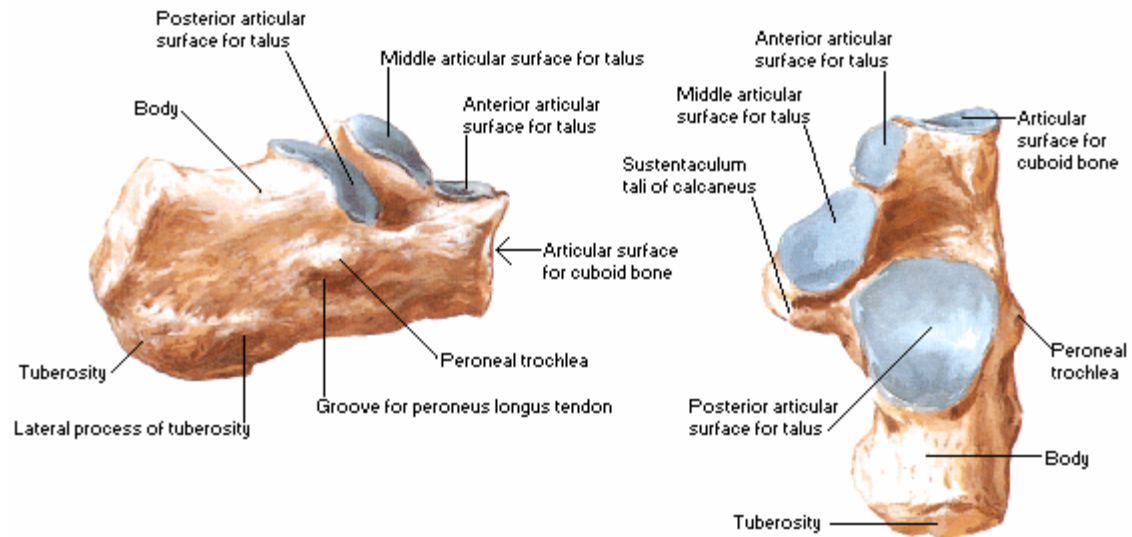
Lateral View



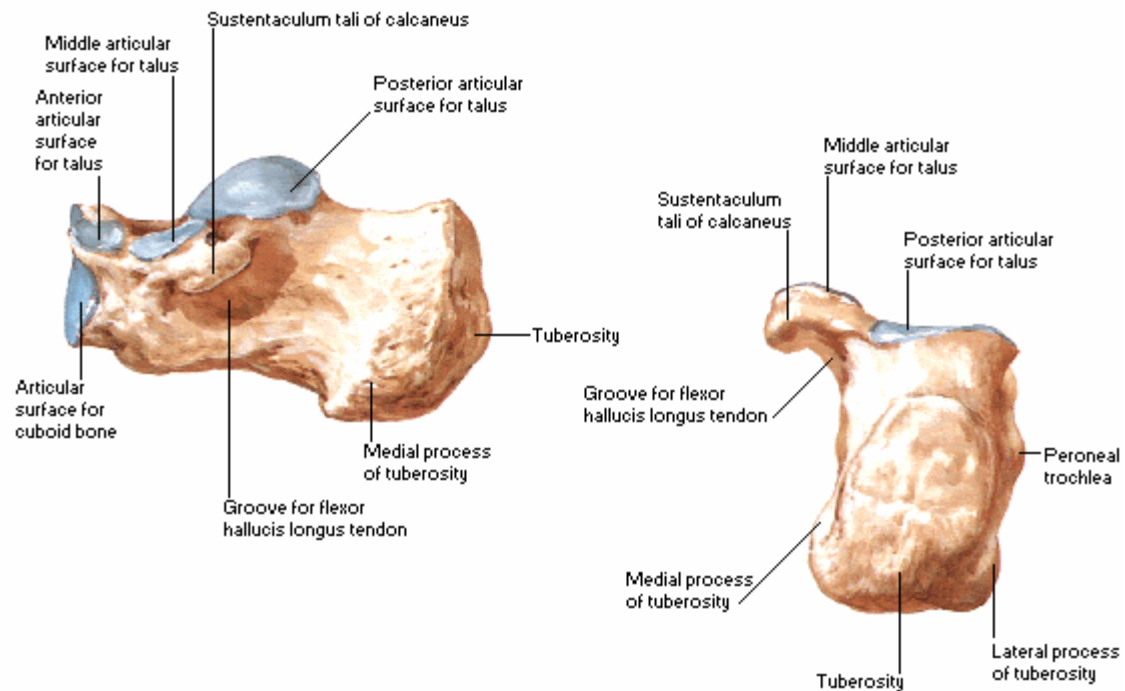
Medial View



Lateral and Superior Views



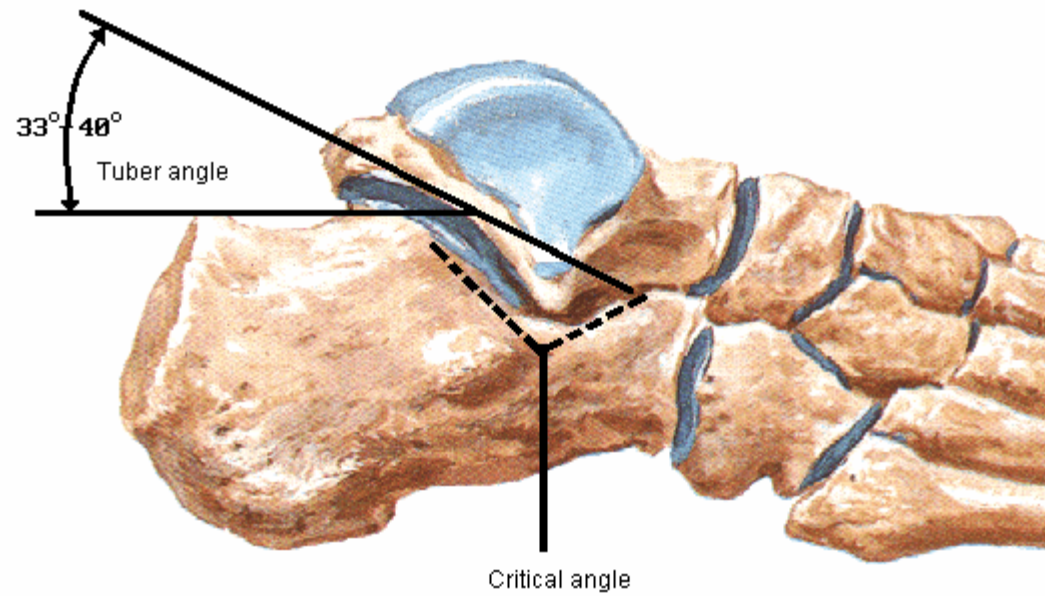
Medial and Posterior Views



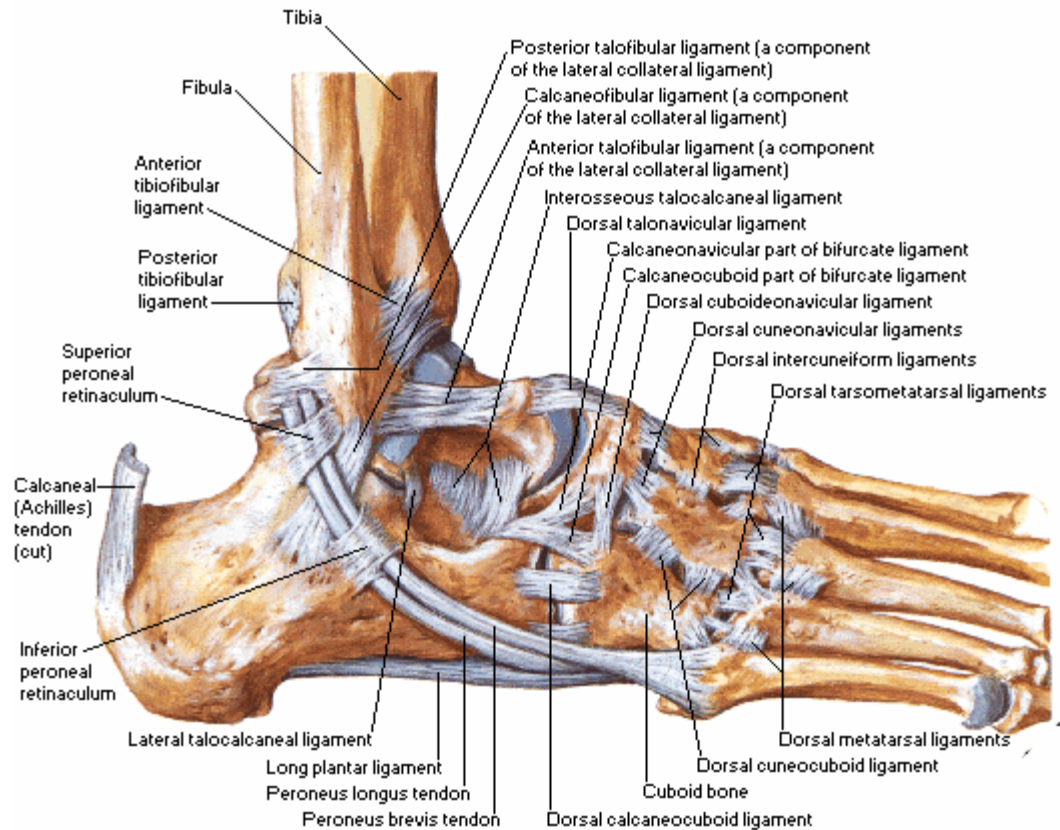
Posterior View with Ligaments



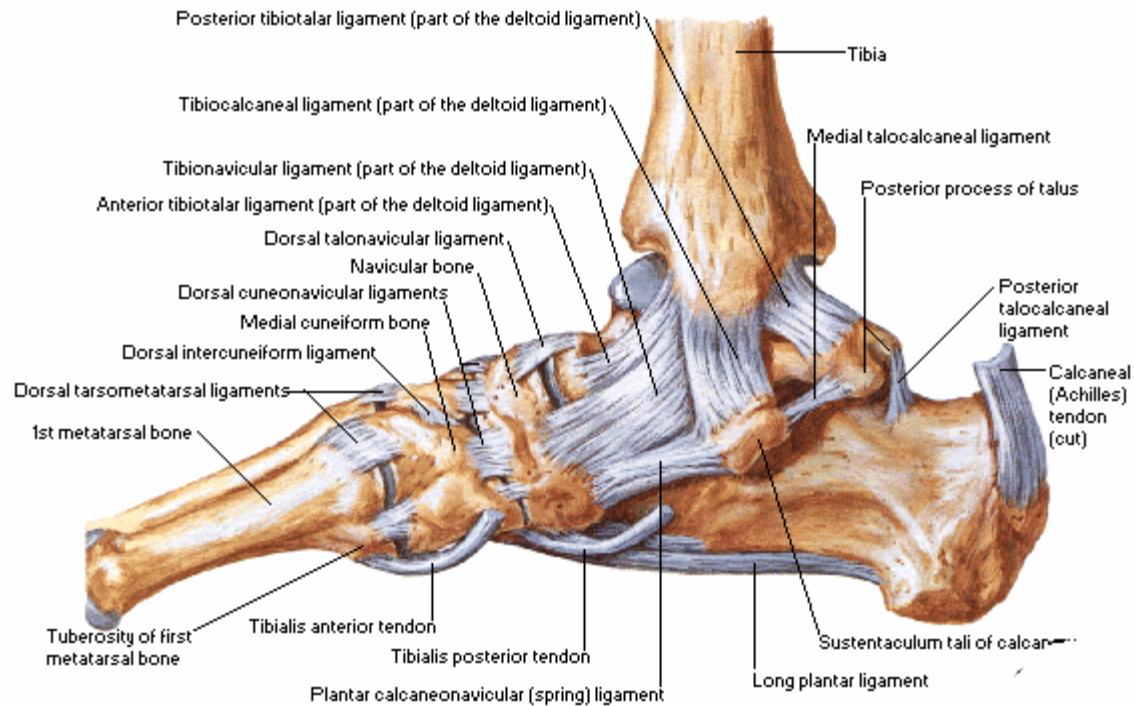
Functional Relations of Calcaneus



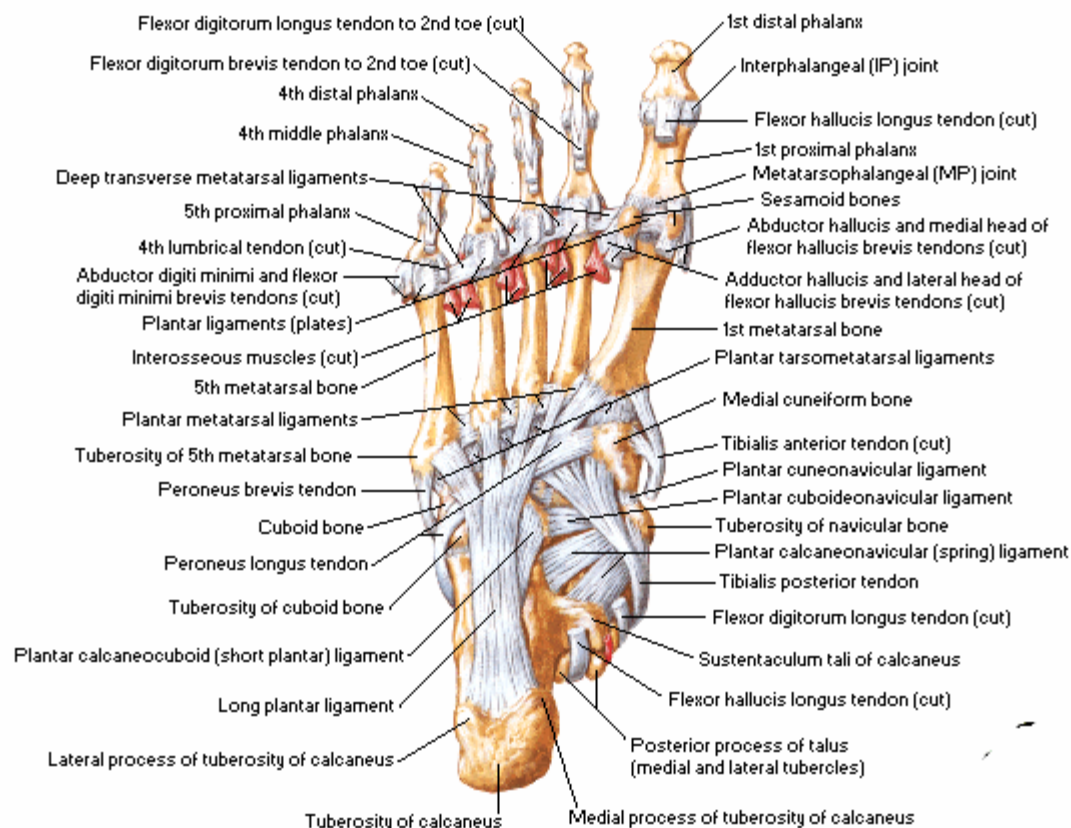
Lateral View



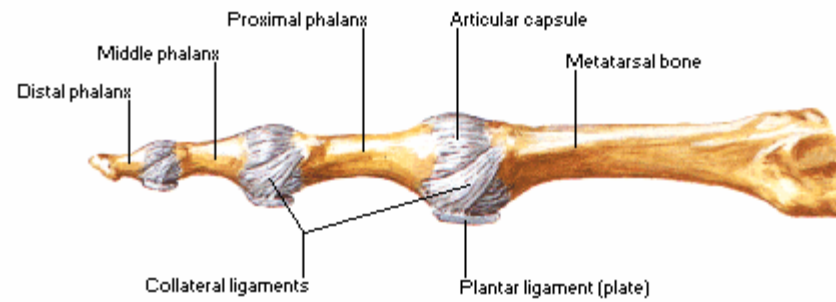
Medial View



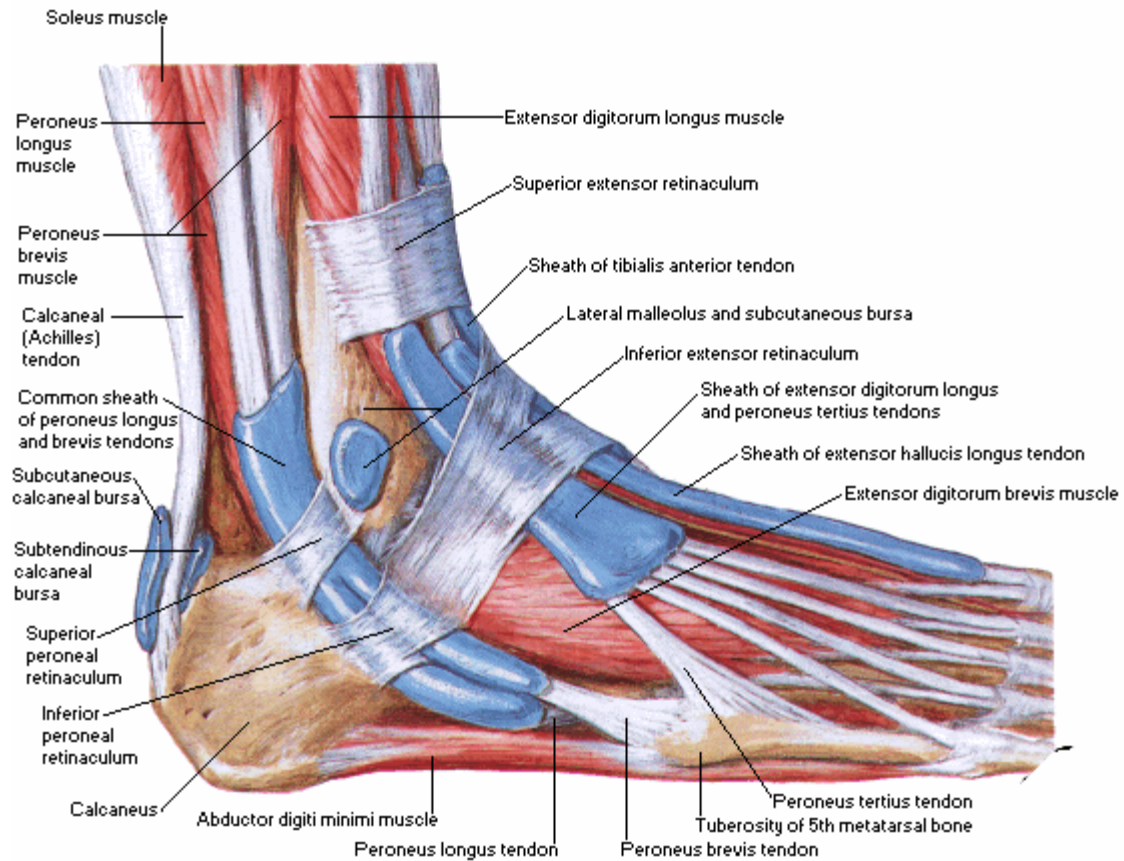
Plantar View



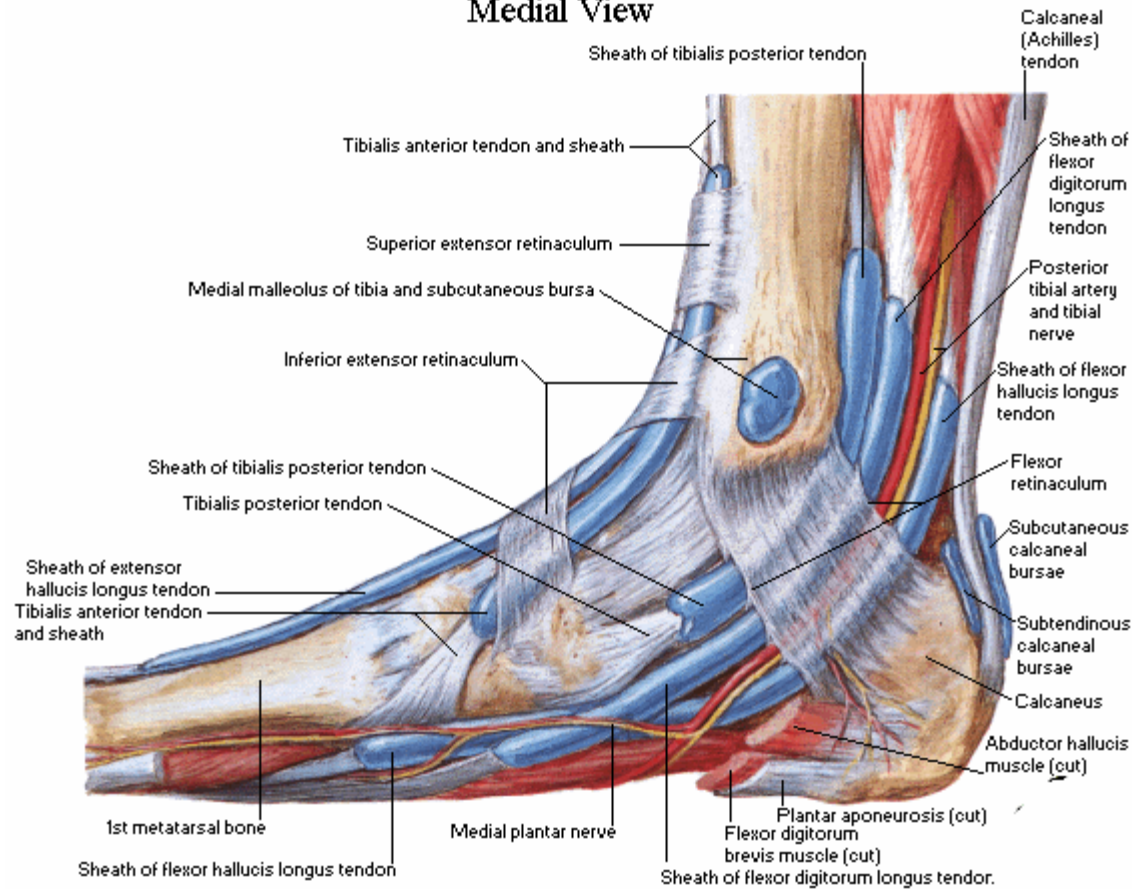
Lateral View



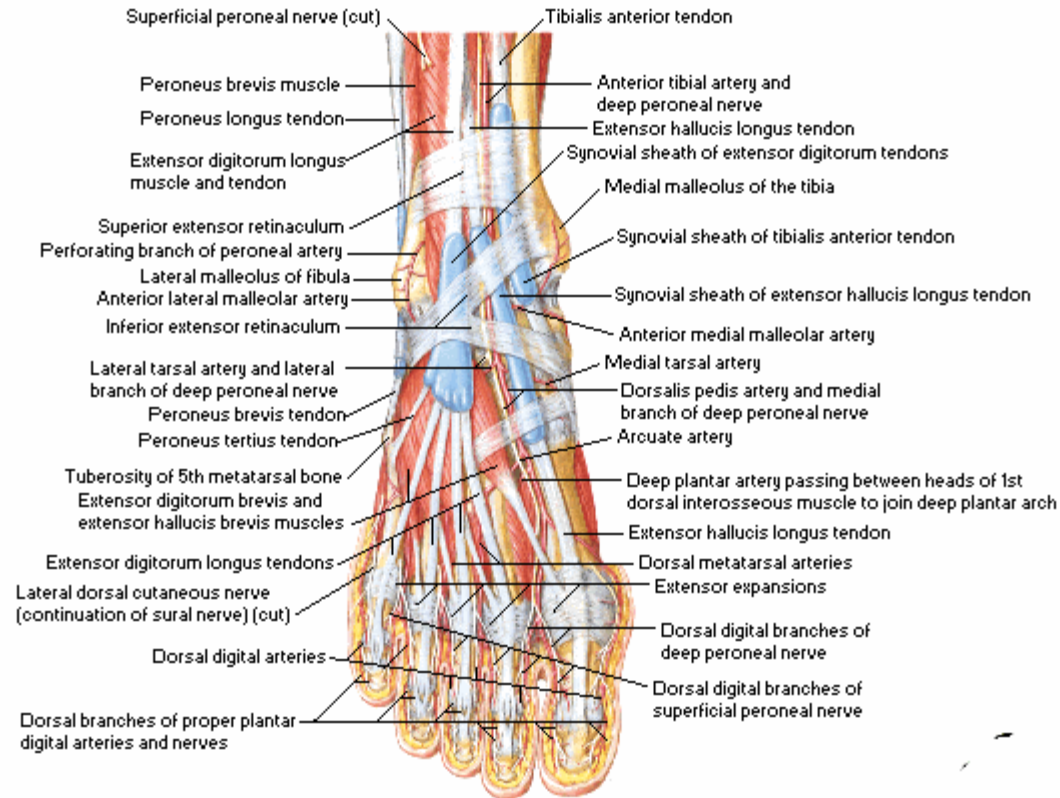
Lateral View



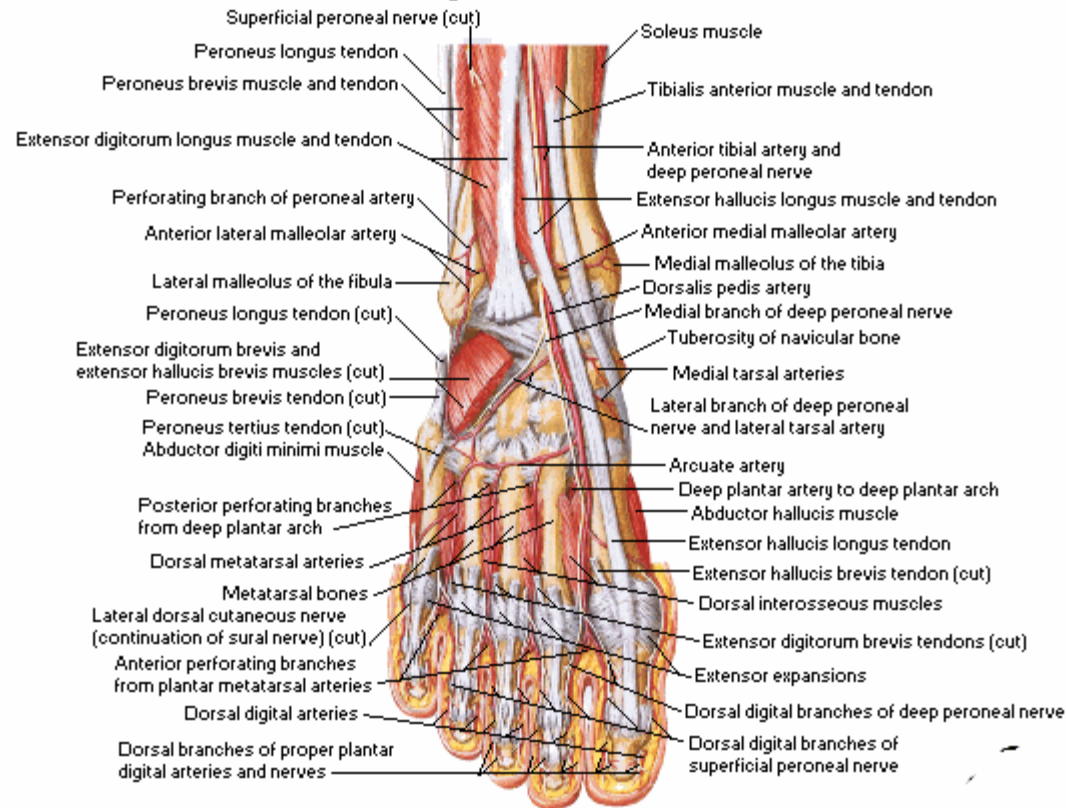
Medial View



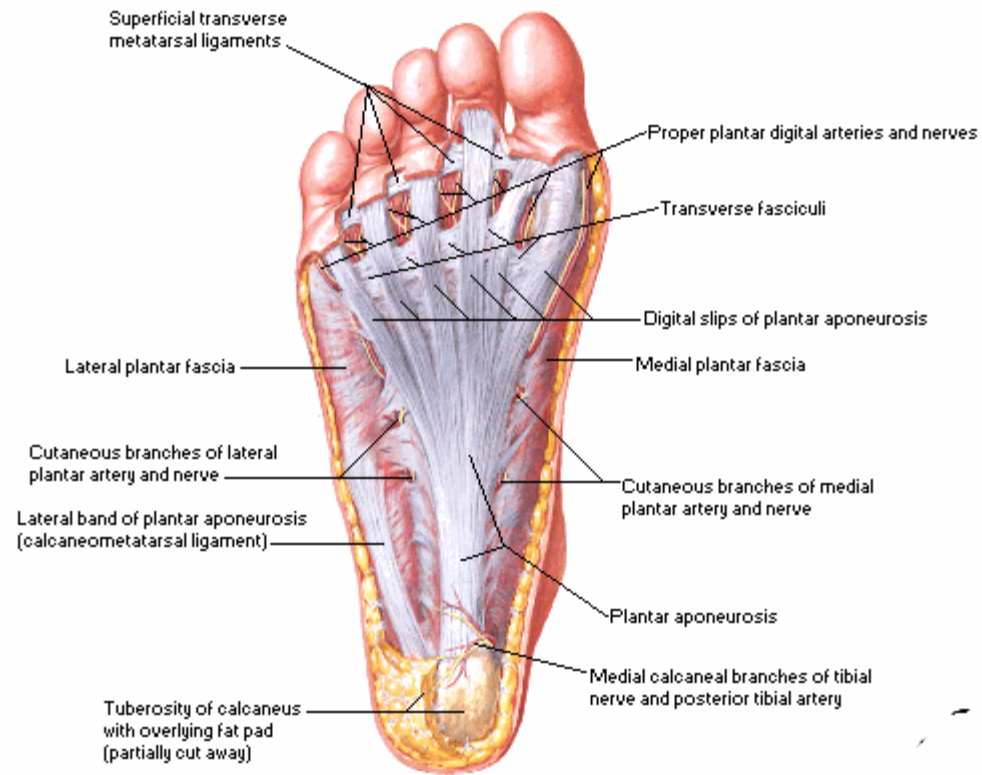
Superficial Dissection



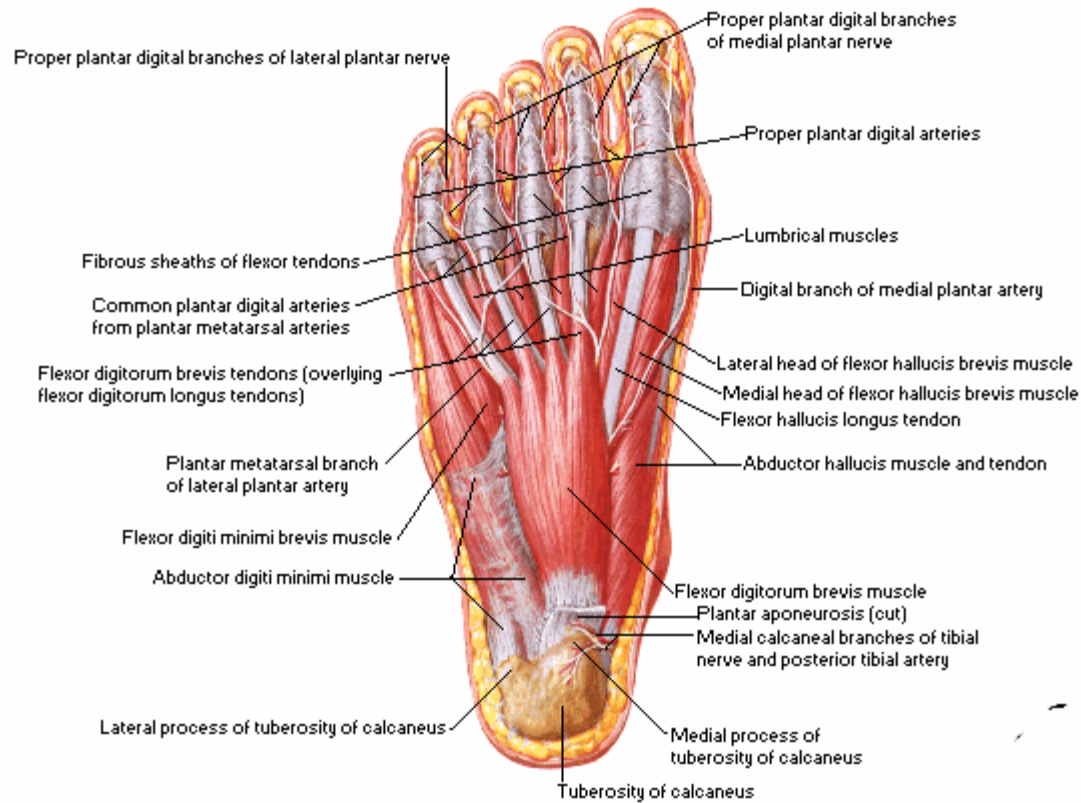
Deep Dissection



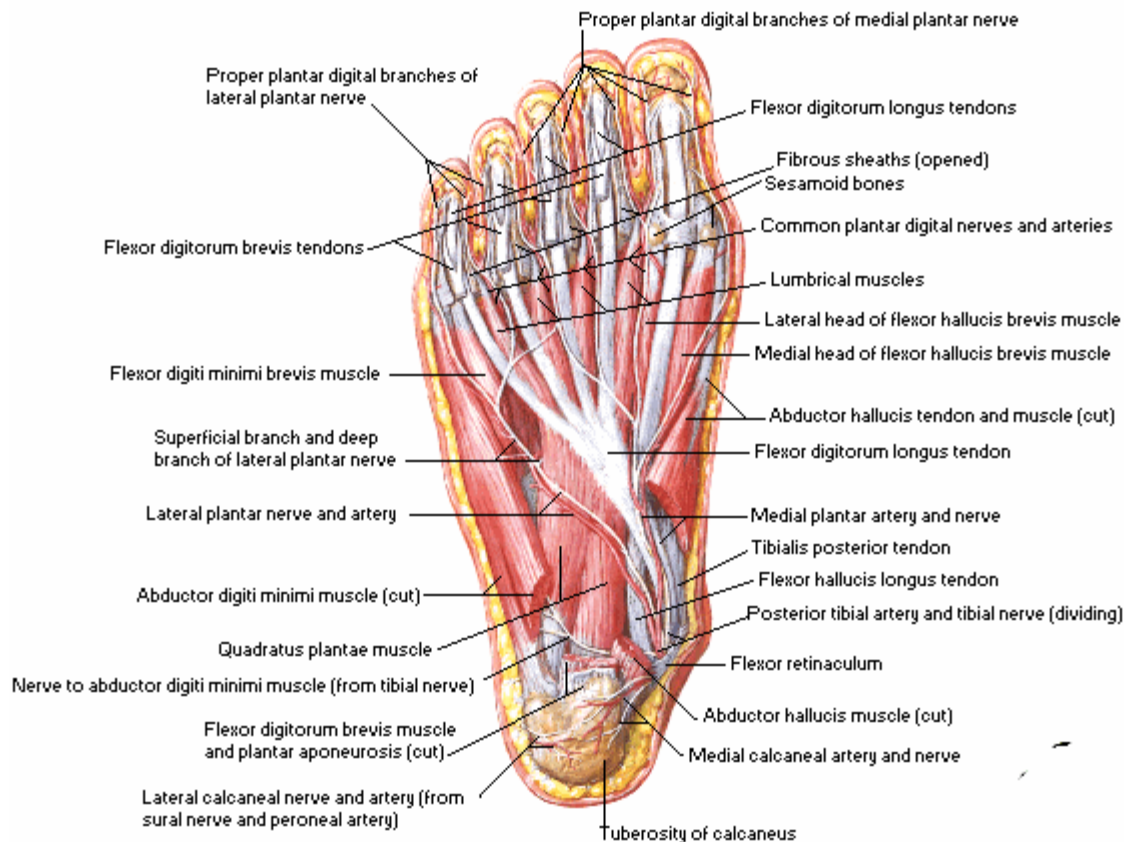
Superficial Dissection



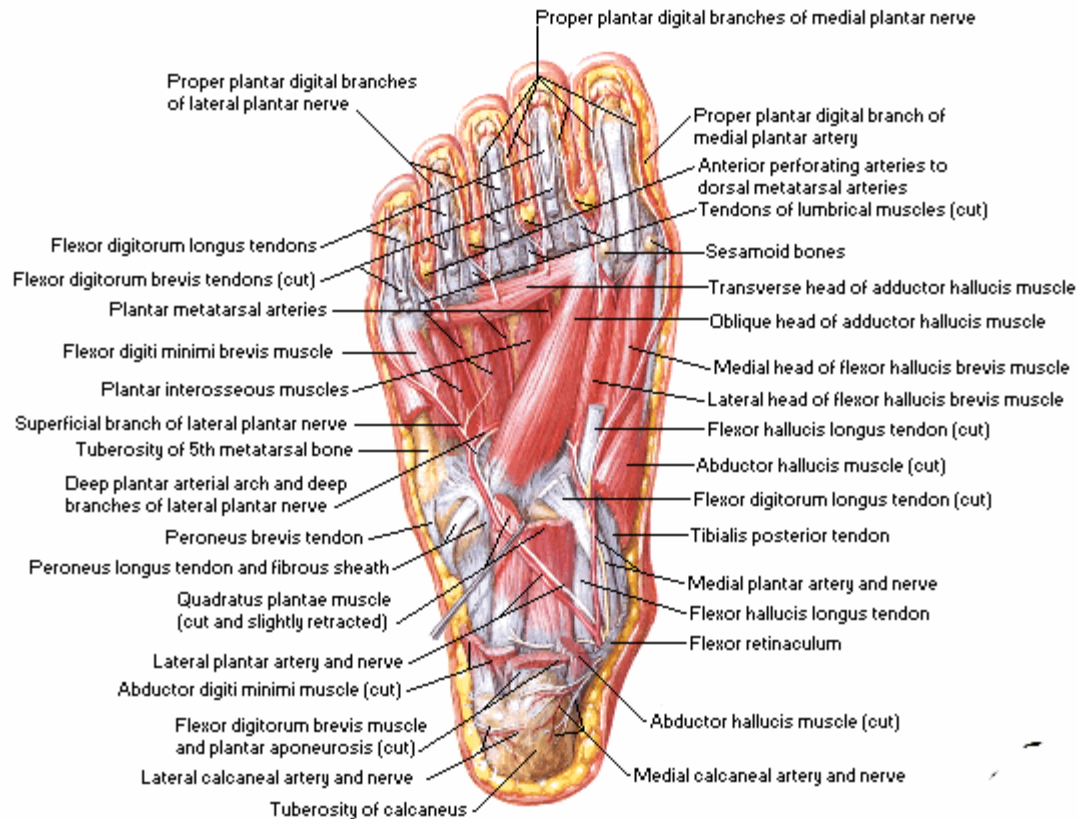
First Layer



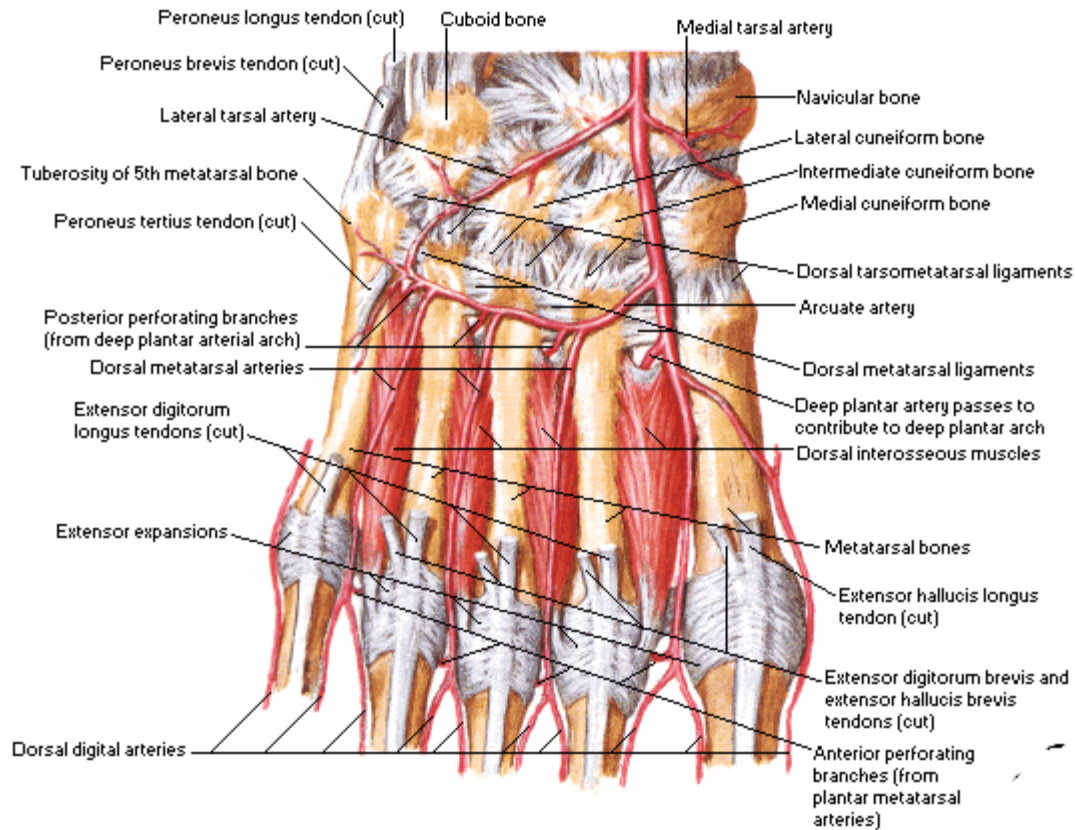
Second Layer



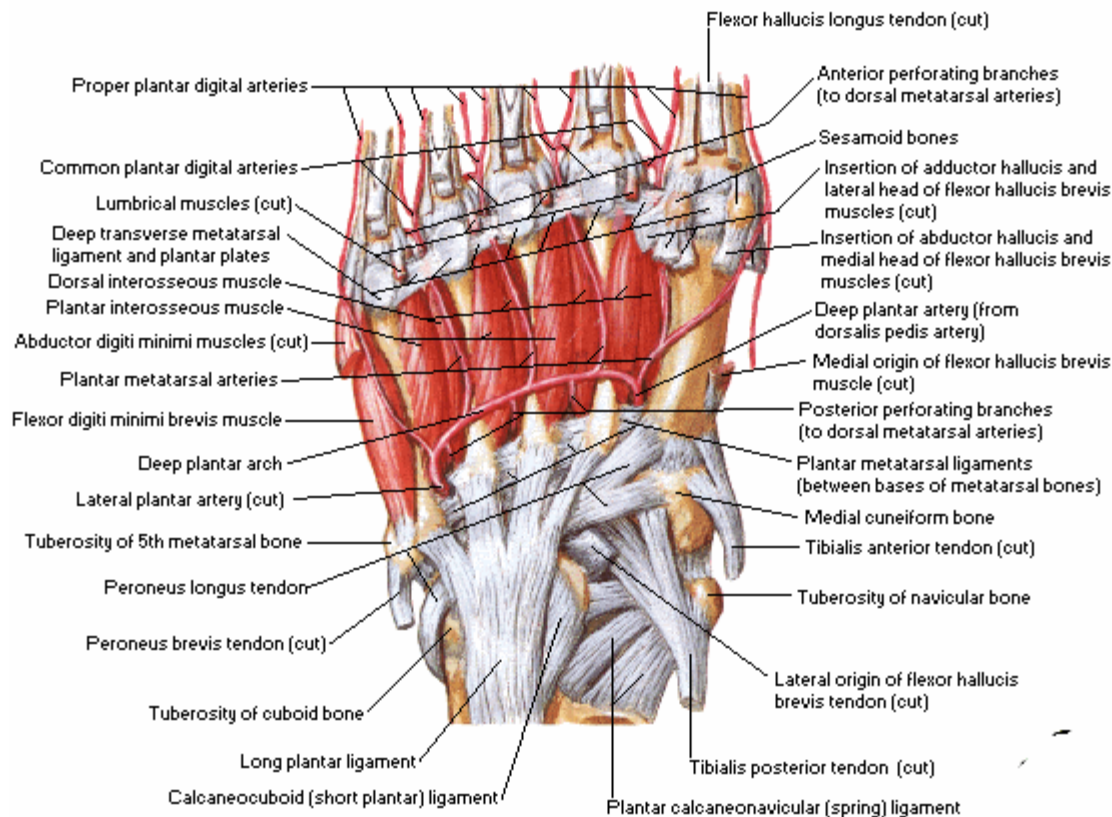
Third Layer



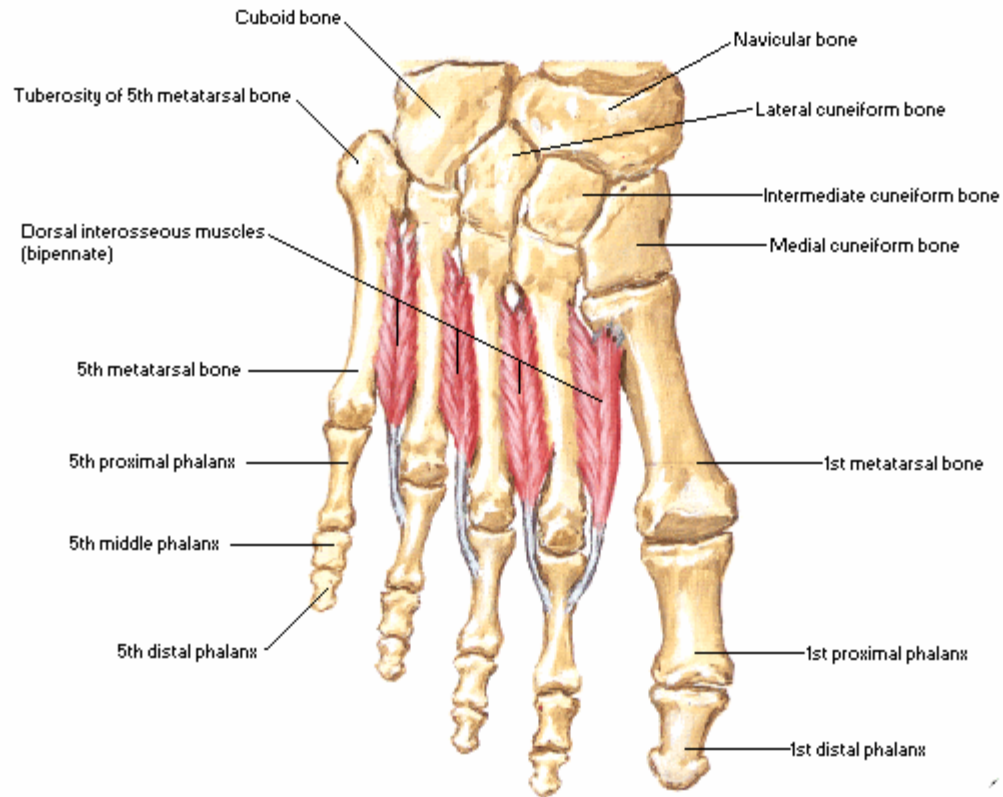
Dorsal View



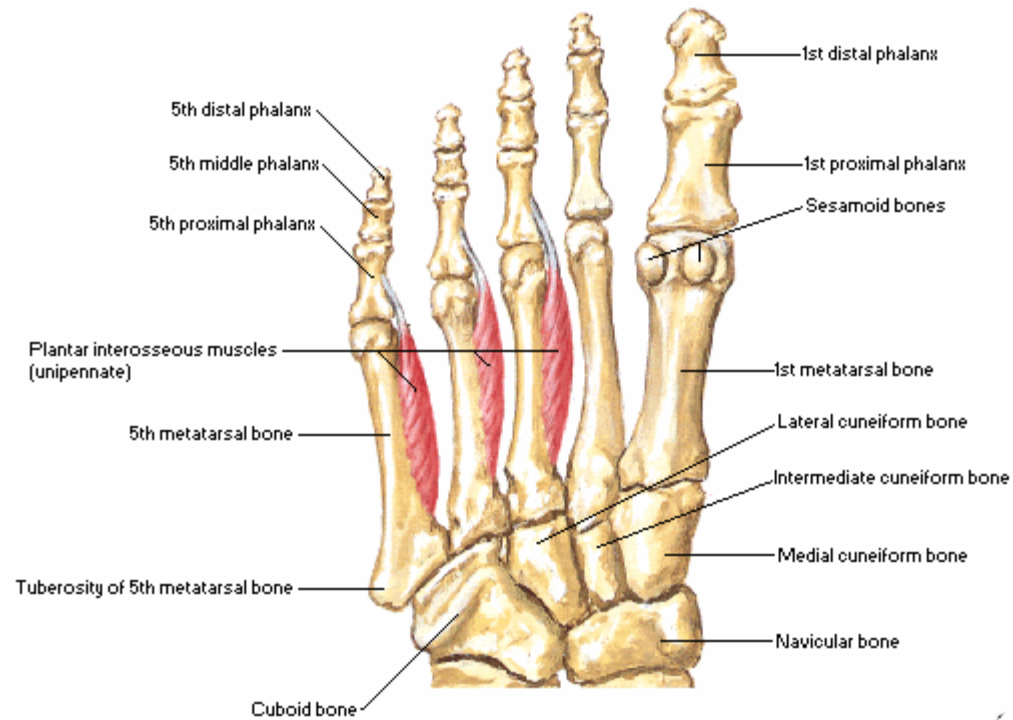
Plantar View

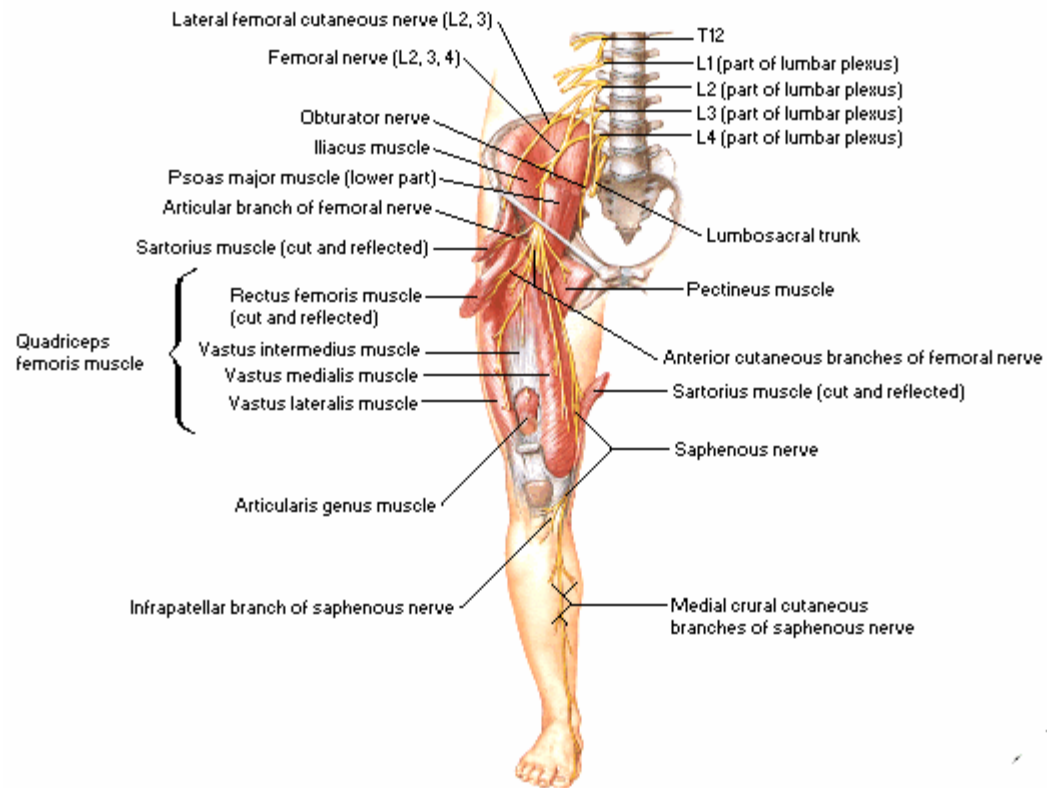


Dorsal View



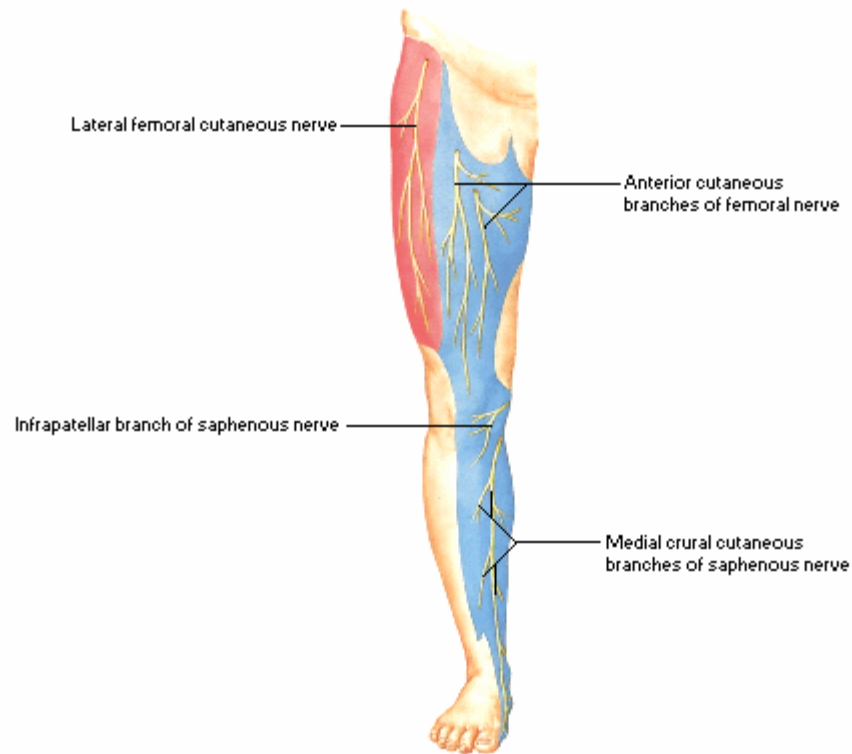
Plantar View

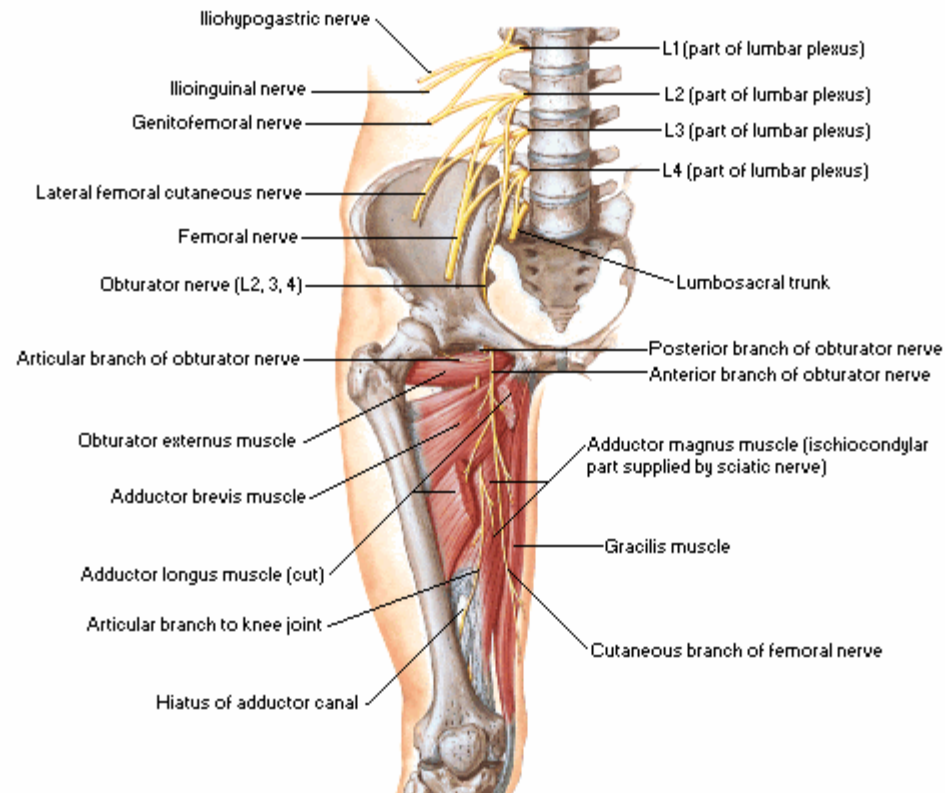




Note: only muscles innervated by femoral nerve shown

Cutaneous Innervation

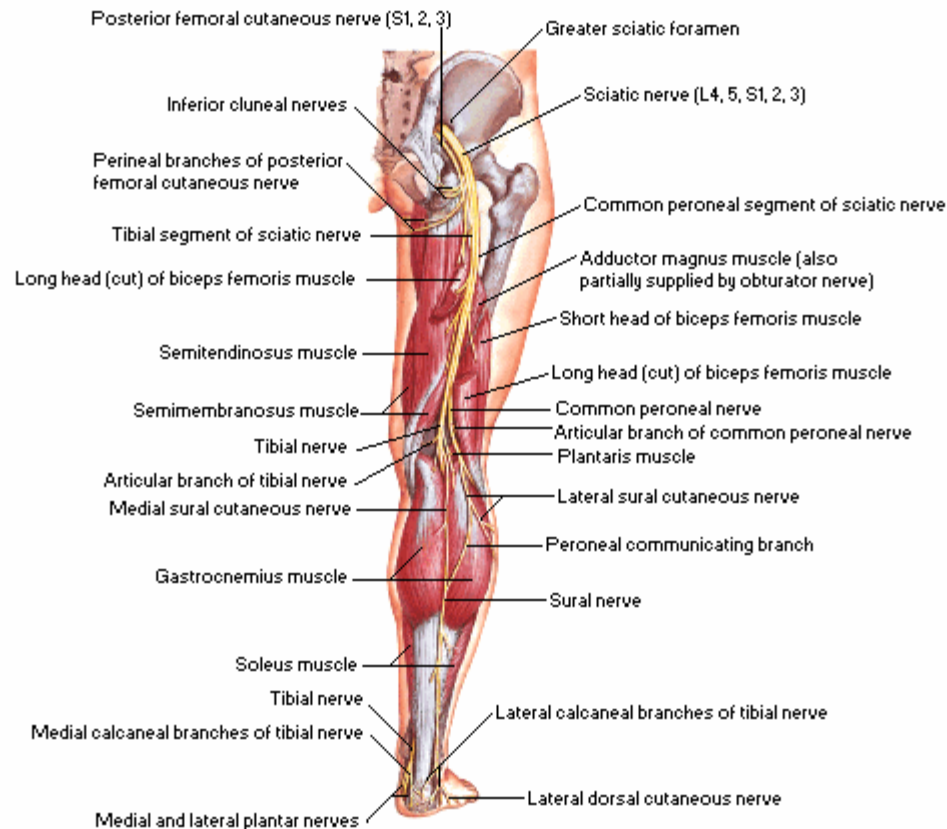




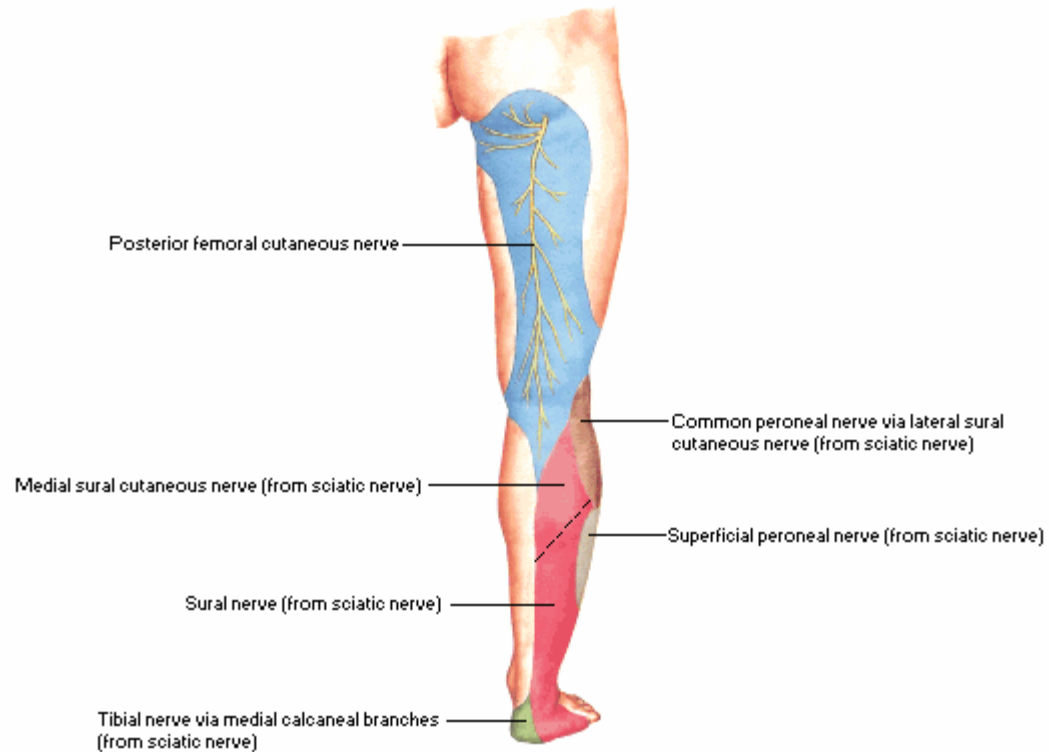
Note: only muscles innervated by obturator nerve shown

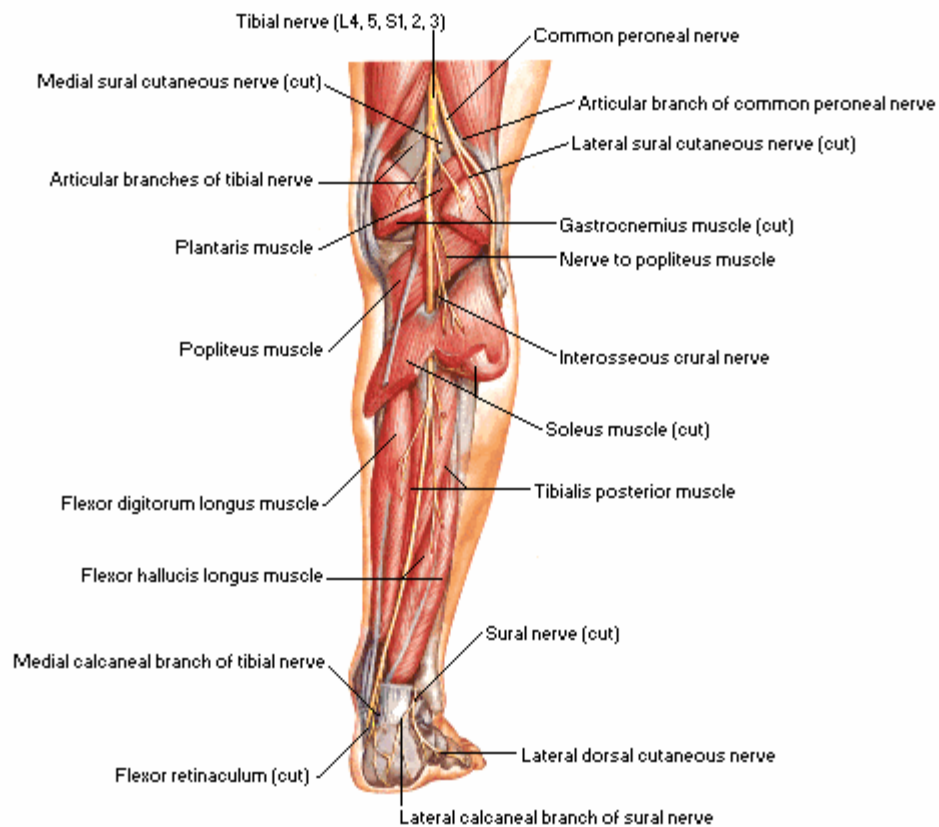
Cutaneous Innervation



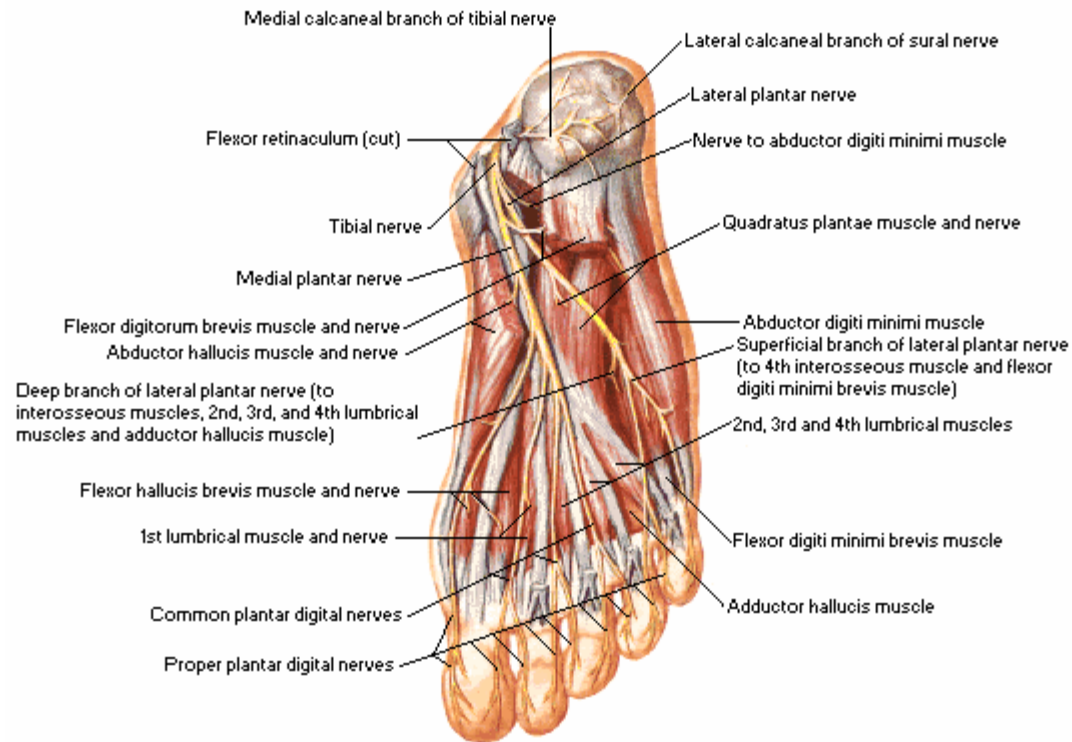


Cutaneous Innervation



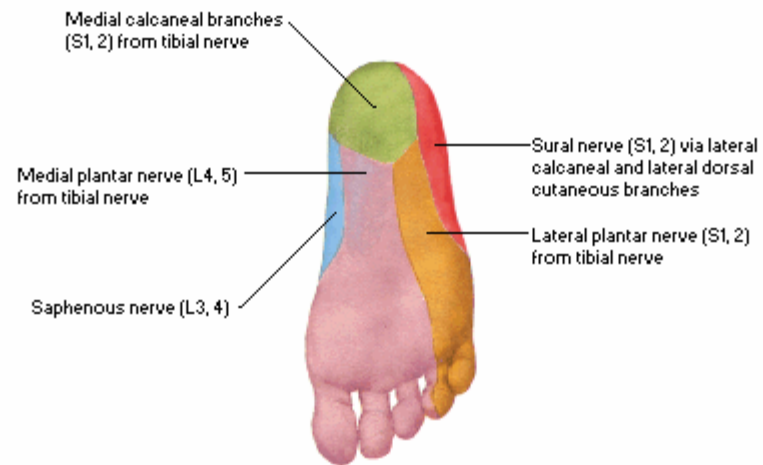


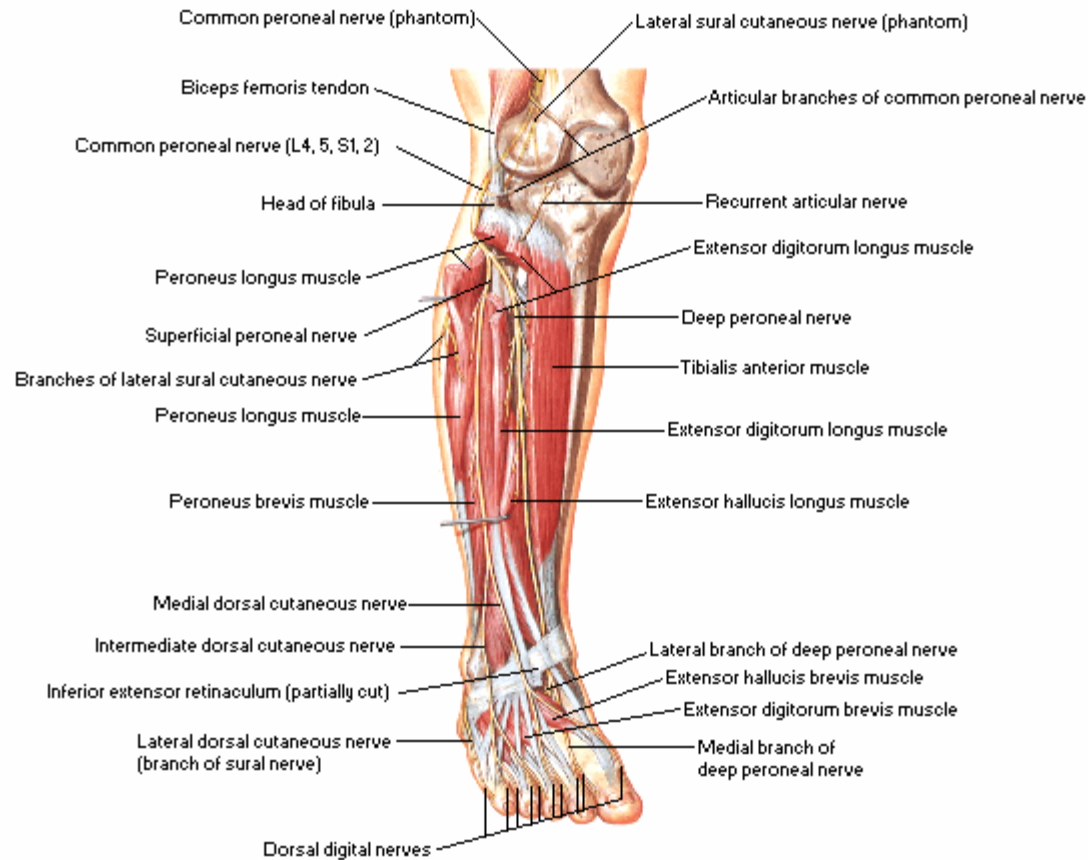
Plantar View



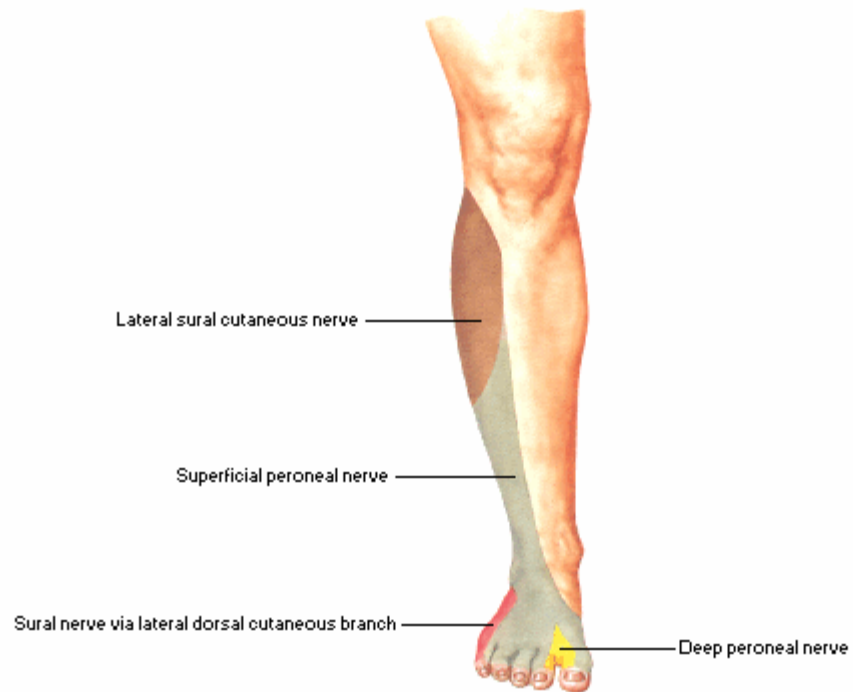
Note: articular branches not shown

Cutaneous Innervation of Sole of Foot

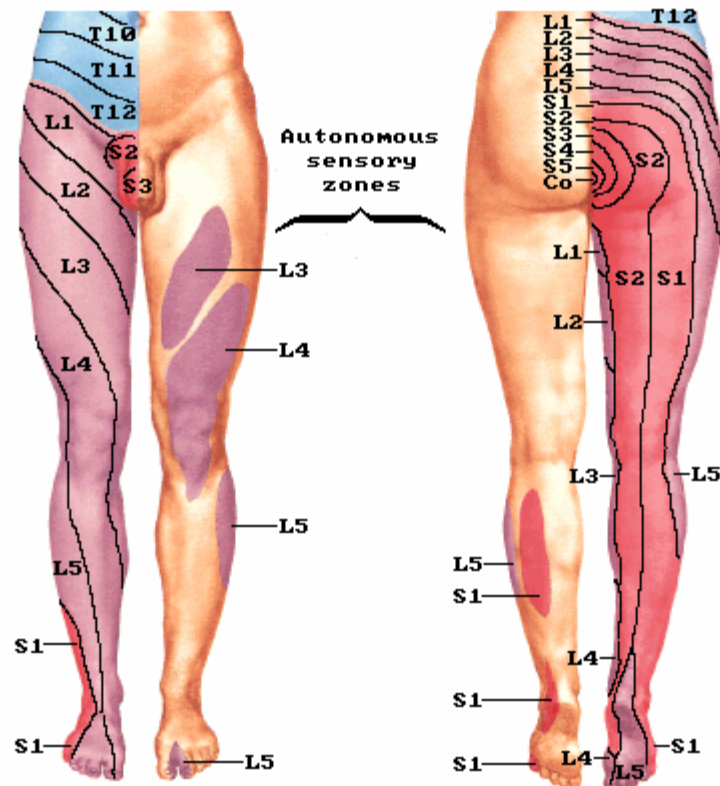


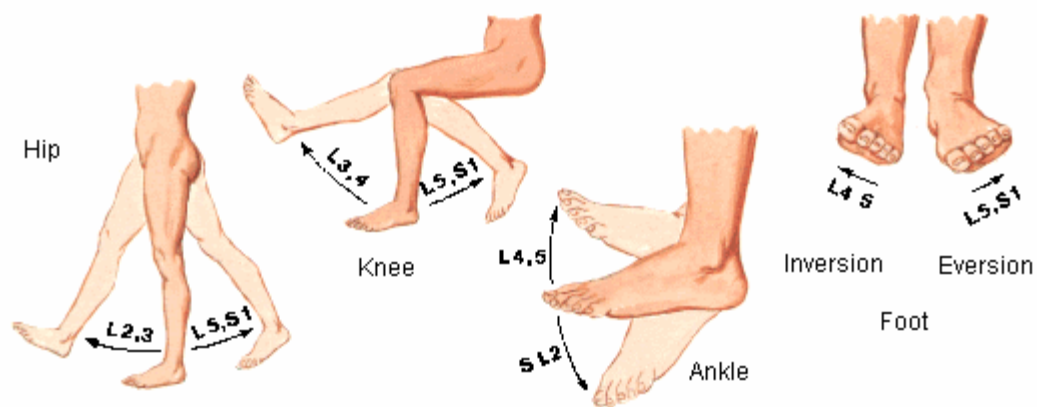


Cutaneous Innervation

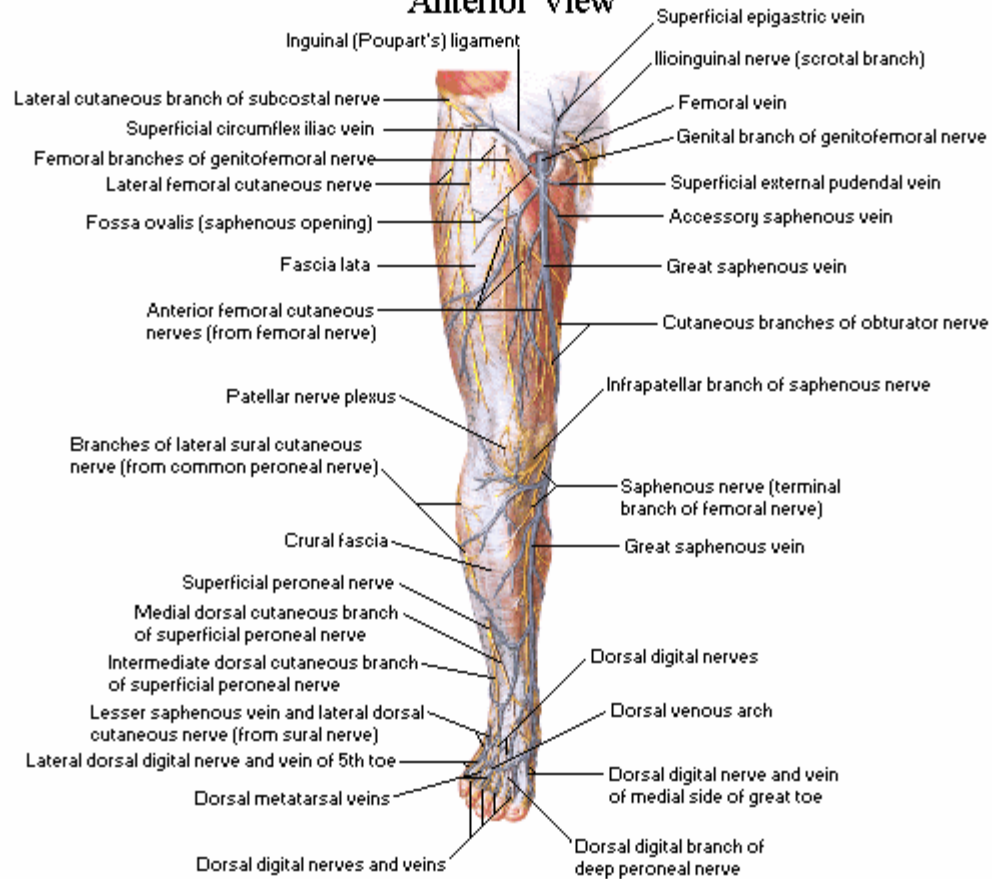


Anterior and Posterior Views

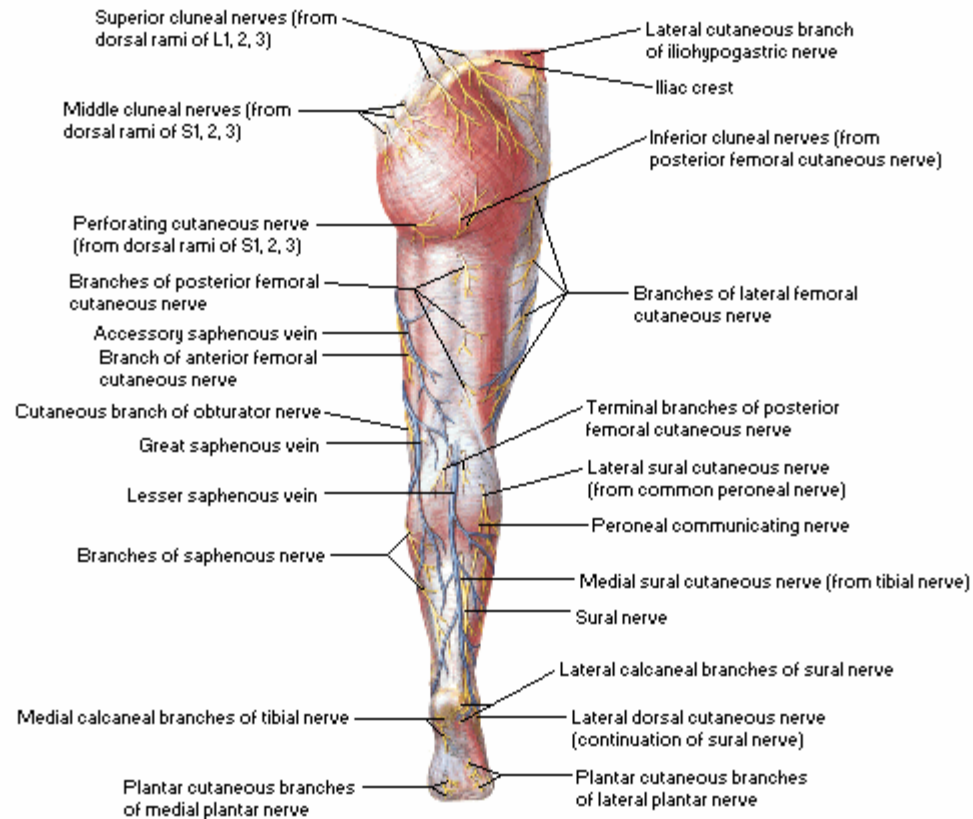




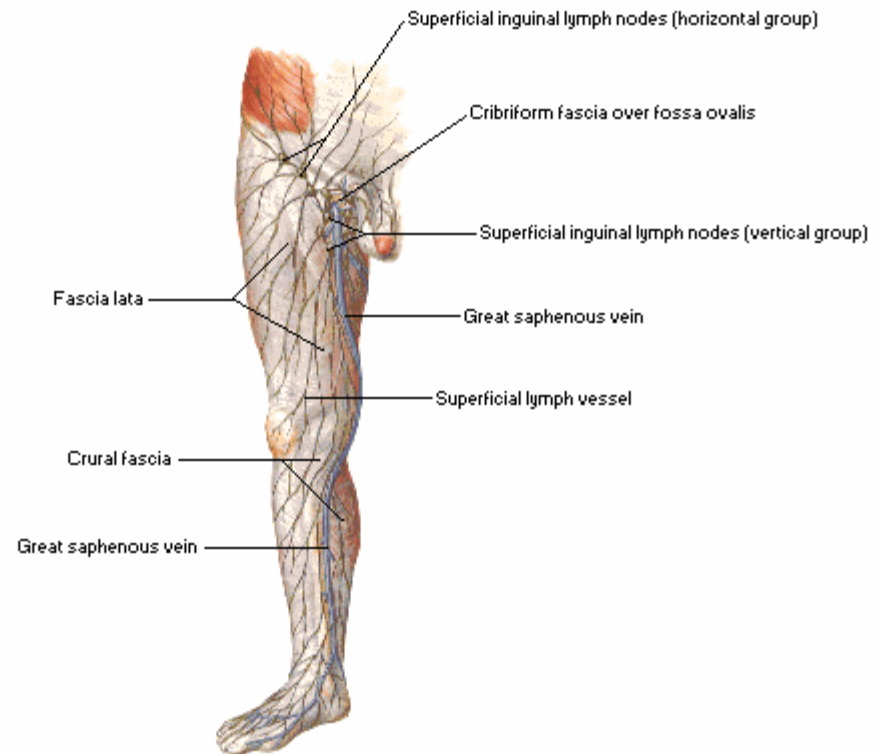
Anterior View



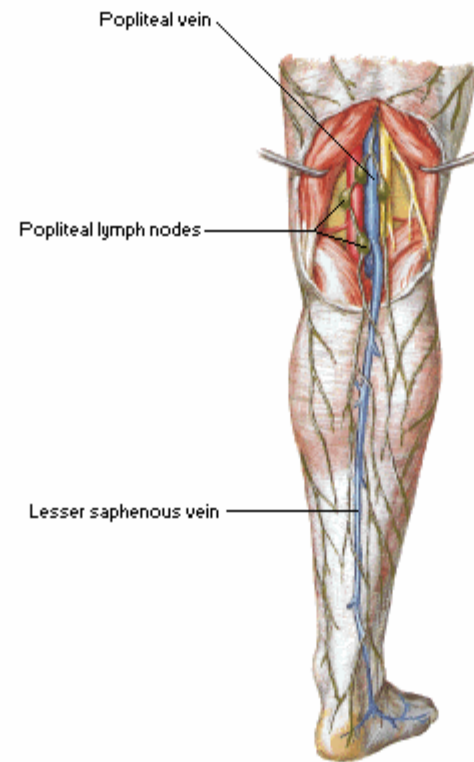
Posterior View



Anterior View



Posterior View



Inguinal Region

